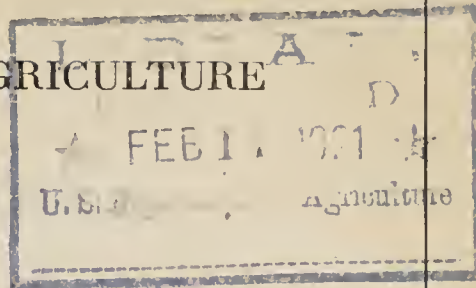


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U. S. DEPARTMENT OF AGRICULTURE



COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME
ECONOMICS, 1919



WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
STATES RELATIONS SERVICE,
Washington, D. C., September 30, 1920.

SIR: I have the honor to transmit herewith a report on cooperative extension work in agriculture and home economics in the United States for 1919, and on the work of the Department of Agriculture in relation thereto. This is a part of a report prepared in accordance with the following provision of the act of Congress of March 4, 1915, entitled "An act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and sixteen:"

That hereafter there be prepared by the Department of Agriculture an annual report on the work and expenditures of the agricultural experiment stations established under the act of Congress of March second, eighteen hundred and eighty-seven (Twenty-fourth Statutes at Large, page four hundred and forty), on the work and expenditures of the Department of Agriculture in connection therewith, and on the cooperative agricultural extension work and expenditures of the Department of Agriculture and of agricultural colleges under the act of May eighth, nineteen hundred and fourteen, entitled "An act to provide for cooperative agricultural extension work between the agricultural colleges in the several States receiving the benefits of an act of Congress approved July second, eighteen hundred and sixty-two, and of acts supplementary thereto, and the United States Department of Agriculture;" and that there be printed annually eight thousand copies of said report, of which one thousand copies shall be for the use of the Senate, two thousand copies for the use of the House of Representatives, and five thousand copies for the use of the Department of Agriculture (38 Stat. L., p. 1110).

This report embodies all the information heretofore submitted in compliance with the provisions of 38 Stat. L., p. 374, sec. 7.

Very respectfully,

A. C. TRUE, *Director.*

Hon. E. T. MEREDITH,
Secretary of Agriculture.

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DEPARTMENT OFFICIALS IN CHARGE OF AGRICULTURAL EXTENSION WORK.

STATES RELATIONS SERVICE.

A. C. TRUE, Director.

OFFICE OF EXTENSION WORK IN THE SOUTH.

BRADFORD KNAPP, Chief.

J. A. EVANS, Assistant Chief.

States.

Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

Washington Staff.

COOPERATIVE RELATIONS AND COUNTY-AGENT WORK.

J. A. EVANS, Assistant Chief.

W. B. MERCIER, Agriculturist and field agent for Arkansas, Louisiana, Tennessee, and North Carolina, and in general charge of cooperative projects.

H. E. SAVELY, Agriculturist and field agent for Mississippi, Alabama, South Carolina, Georgia, and Florida.

E. A. MILLER, Agriculturist and field agent for Kentucky, Maryland, Virginia, and West Virginia.

C. H. ALVORD, Agriculturist and field agent for Texas and Oklahoma.

I. O. SCHAU, In charge of work of specialists.

F. W. FARLEY, Specialist, animal husbandry.

J. H. MCCLAIN, Specialist, dairy husbandry.

J. W. KINGHORNE, Specialist, poultry husbandry.

J. H. HYSLOP, Specialist, entomology.

J. C. SKINNER, Specialist, marketing.

W. R. MATTOON, Specialist, forestry.

C. L. GOODRICH, Specialist, farm management.

L. O. WATSON, Specialist, cotton and truck crop diseases.

W. R. BEATTIE, Specialist, horticulture.

BOYS' AND GIRLS' CLUB WORK AND HOME-DEMONSTRATION WORK.

O. B. MARTIN, Assistant in charge of home-demonstration and girls' club work.

I. W. HILL, Assistant in charge of boys' club work.

C. L. CHAMBERS, Assistant in boys' club work.

F. P. LUND, Specialist, drying and canning.

OLA POWELL, Assistant in home-demonstration and girls' club work.

MADGE J. REESE, Assistant in home-demonstration work.

HANNAH L. WESSLING, Assistant chemist, bread making.

MARY E. KEOWN, Assistant in home-demonstration work.

ASSISTANTS.

H. W. BARBER, Assistant in charge of crop records and statistics.

W. H. CONWAY, Executive clerk.

F. M. McLAUGHLIN, Executive assistant.

Cooperative Field Extension Staff.

COUNTY AGENT AND BOYS' CLUB WORK.

Men agents, 15 directors, 14 State agents, 7 assistant State agents, 72 district agents, 1,124 county agents and assistants, 177 local agents for negroes.

Boys' club work, 41 State leaders, 64 county club leaders.

HOME-DEMONSTRATION AND GIRLS' CLUB WORK.

Women agents, 13 State agents, 82 assistant State and district agents, 763 county agents, 250 local agents for negroes, 50 city agents, 7 city agents for negroes.

OFFICE OF EXTENSION WORK IN THE NORTH AND WEST.

C. B. SMITH, Chief.

C. E. GUNNELS, Assistant Chief.

States.

Arizona, California, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Washington Staff.

COOPERATIVE RELATIONS.

C. E. GUNNELS, Agriculturist and assistant chief, in charge.	| H. B. FULLER, Agriculturist.
---	------------------------------

COUNTY-AGENT WORK.

W. A. LLOYD, Agriculturist, in charge.	| L. R. SIMONS, Agriculturist.
O. S. FISHER, Agriculturist.	| M. C. WILSON, Agriculturist.
T. W. HARVEY, Agriculturist.	| H. W. GILBERTSON, Assistant agriculturist.
H. W. HOCHBAUM, Agriculturist.	

ADMINISTRATIVE SUBJECT MATTER SPECIALISTS.

A. B. GRAHAM, Assistant agriculturist, in charge.	| W. R. BEATTIE, Specialist, vegetable gardening.
H. J. WILDER, Agriculturist, soils.	| J. T. CAINE, III, Specialist, animal husbandry.
A. F. HAWES, Specialist, forestry.	| HELMER RABILD, Specialist, dairying.
C. P. CLOSE, Specialist, horticulture.	| J. W. KINGHORNE, Specialist, poultry husbandry.
J. A. HYSLOP, Specialist, entomology.	| R. H. ELSWORTH, Specialist, cooperative marketing.

BOYS' AND GIRLS' CLUB WORK.

O. H. BENSON, Agriculturist, in charge.	| M. DANZIGER, Assistant.
T. J. NEWBILL, Assistant.	| G. R. SIMCOX, Assistant.
I. L. HOBSON, Assistant.	| AGNES MORTON, Assistant.
H. B. HENDRICK, Assistant.	| GRACE GOODPASTURE, Assistant.
GERTRUDE WARREN, Assistant.	

FARM-MANAGEMENT DEMONSTRATIONS.

H. C. M. CASE, Agriculturist, in charge.

EXTENSION WORK WITH FARM WOMEN.

FLORENCE E. WARD, Assistant agriculturist, in charge.	| WINIFRED S. GIBBS, Assistant.
MIRIAM BIRDSEYE, Assistant.	| EDITH SALISBURY, Assistant.
EMMA CONLEY, Assistant.	| GRACE M. SMITH, Agent.
GRACE FRYSSINGER, Assistant.	| GERTRUDE VAN HOESEN, Assistant.
	| SARAH PETTIT, Assistant.

ASSISTANTS.

F. G. HARDEN, Scientific assistant.	| M. M. THAYER, Assistant executive clerk.
S. R. HORTON, Executive assistant.	

Cooperative Field Extension Staff.

COUNTY-AGENT WORK.

Thirty-three county-agent leaders, 78 assistant county-agent leaders, 1,288 county agents and assistants.

BOYS' AND GIRLS' CLUB WORK.

Twenty-three State leaders, 89 assistant State leaders, 469 county club leaders.

FARM-MANAGEMENT DEMONSTRATIONS.

Twenty-two State demonstrators, 11 assistant demonstrators.

HOME-DEMONSTRATION WORK.

Thirty-four State leaders, 41 assistant State leaders, 433 county home-demonstration agents, 101 city home-demonstration agents.

STATE OFFICIALS IN CHARGE OF AGRICULTURAL EXTENSION WORK.

ALABAMA.—J. F. Duggar, Alabama Polytechnic Institute, Auburn.
 ARIZONA.—E. P. Taylor, College of Agriculture, University of Arizona, Tucson.
 ARKANSAS.—W. C. Lassetter, College of Agriculture, University of Arkansas, Fayetteville.
 CALIFORNIA.—B. H. Crocheron, College of Agriculture, University of California, Berkeley.
 COLORADO.—H. T. French, State Agricultural College of Colorado, Fort Collins.
 CONNECTICUT.—H. J. Baker, Connecticut Agricultural College, Storrs.
 DELAWARE.—H. Hayward, Delaware College, Newark.
 FLORIDA.—P. H. Rolfs, College of Agriculture, University of Florida, Gainesville.
 GEORGIA.—J. Phil Campbell, Georgia State College of Agriculture, Athens.
 IDAHO.—L. W. Fluharty, The State House, Boise.
 ILLINOIS.—W. F. Handschin, College of Agriculture, University of Illinois, Urbana.
 INDIANA.—G. I. Christie, Purdue University, La Fayette.
 IOWA.—R. K. Bliss, Iowa State College of Agriculture and Mechanic Arts, Ames.
 KANSAS.—H. Umberger, Kansas State Agricultural College, Manhattan.
 KENTUCKY.—T. P. Cooper, College of Agriculture, The State University, Lexington.
 LOUISIANA.—W. R. Perkins, Louisiana State University, Baton Rouge.
 MAINE.—L. S. Merrill, College of Agriculture, University of Maine, Orono.
 MARYLAND.—T. B. Symons, Maryland State College of Agriculture, College Park.
 MASSACHUSETTS.—R. W. Redman (acting), Massachusetts Agricultural College, Amherst.
 MICHIGAN.—R. J. Baldwin, Michigan Agricultural College, East Lansing.
 MINNESOTA.—A. D. Wilson, College of Agriculture, University of Minnesota, University Farm, St. Paul.
 MISSISSIPPI.—R. S. Wilson, Mississippi Agricultural and Mechanical College, Agricultural College.
 MISSOURI.—A. J. Meyer, College of Agriculture, University of Missouri, Columbia.
 MONTANA.—F. S. Cooley, Montana State College of Agriculture and Mechanic Arts, Bozeman.
 NEBRASKA.—W. H. Brokaw, College of Agriculture, University of Nebraska, Lincoln.
 NEVADA.—C. A. Norcross, College of Agriculture, University of Nevada, Reno.
 NEW HAMPSHIRE.—J. C. Kendall, New Hampshire College of Agriculture and the Mechanic Arts, Durham.
 NEW JERSEY.—L. A. Clinton, Rutgers College, New Brunswick.
 NEW MEXICO.—A. C. Cooley, New Mexico College of Agriculture and Mechanic Arts, State College.
 NEW YORK.—A. R. Mann, New York State College of Agriculture, Ithaca.
 NORTH CAROLINA.—B. W. Kilgore, North Carolina College of Agriculture and Mechanic Arts, West Raleigh.
 NORTH DAKOTA.—G. W. Randlett, North Dakota Agricultural College, Agricultural College.
 OHIO.—C. S. Wheeler, College of Agriculture, Ohio State University, Columbus.
 OKLAHOMA.—J. A. Wilson, Oklahoma Agricultural and Mechanical College, Stillwater.
 OREGON.—O. D. Center, Oregon State Agricultural College, Corvallis.
 PENNSYLVANIA.—M. S. McDowell, Pennsylvania State College, State College.
 RHODE ISLAND.—A. E. Stene, Rhode Island State College, Kingston.
 SOUTH CAROLINA.—W. W. Long, Clemson Agricultural College of South Carolina, Clemson College.
 SOUTH DAKOTA.—Christian Larsen, South Dakota State College, Brookings.
 TENNESSEE.—C. A. Keffer, College of Agriculture, University of Tennessee, Knoxville.
 TEXAS.—T. O. Walton, Agricultural and Mechanical College of Texas, College Station.
 UTAH.—J. T. Caine, III, Agricultural College of Utah, Logan.
 VERMONT.—Thomas Bradlee, University of Vermont and State Agricultural College, Burlington.
 VIRGINIA.—J. M. Jones, Virginia Polytechnic Institute, Blacksburg.
 WASHINGTON.—S. B. Nelson, State College of Washington, Pullman.
 WEST VIRGINIA.—N. T. Frame, College of Agriculture, West Virginia University, Morgantown.
 WISCONSIN.—K. L. Hatch, College of Agriculture, University of Wisconsin, Madison.
 WYOMING.—A. E. Bowman, College of Agriculture, University of Wyoming, Laramie.

OFFICIALS IN CHARGE OF FARMERS' INSTITUTE WORK IN THE STATES.¹

ALABAMA.—C. A. Cary, Polytechnic Institute, Auburn.
 DELAWARE.—Wesley Webb, secretary State board of agriculture, Dover.
 ILLINOIS.—H. E. Young, secretary Illinois farmers' institutes, Springfield.
 IOWA.—A. R. Corey, secretary State board of agriculture, Des Moines.
 MAINE.—J. A. Roberts, commissioner of agriculture, Augusta.
 MASSACHUSETTS.—Wilfred Wheeler, secretary State board of agriculture, Boston.
 MISSOURI.—Jewell Mayes, secretary State board of agriculture, Jefferson City.
 NEW HAMPSHIRE.—Andrew L. Felker, commissioner of agriculture, Concord.
 NEW JERSEY.—John H. Hankinson, director of farmers' institutes, New Brunswick.
 NORTH CAROLINA.—T. B. Parker, director of farmers' institutes, Raleigh.
 PENNSYLVANIA.—C. E. Carothers, director of farmers' institutes, Harrisburg.
 RHODE ISLAND.—John J. Dunn, secretary State board of agriculture, Providence.
 TEXAS.—J. W. Neill, director of institutes, State board of agriculture, Austin.
 VERMONT.—Elbert S. Brigham, commissioner of agriculture, Montpelier.
 VIRGINIA.—J. J. Owen, director of institutes, Richmond.

¹ In the States not included in this list the farmers' institutes are in charge of the agricultural colleges.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, 1918-19.

DEVELOPMENT UNDER THE SMITH-LEVER ACT.

This is the fifth report on cooperative extension work in agriculture and home economics organized under the act of Congress of May 8, 1914 (Smith-Lever Act), and similar work conducted under cooperative agreements between the United States Department of Agriculture, State agricultural colleges, and local organizations. It covers in part a period of readjustment of the disturbed conditions created by the war.

Administration.—When the cooperative extension act was passed May 8, 1914, a considerable amount of extension work, including that known as farm-demonstration work and various activities such as farmers' institutes, movable schools, extension lectures, and the like, was already in progress. Following the passage of the act steps were immediately taken to coordinate all of this work and to put it on a project basis under a general "memorandum of understanding" between the Department of Agriculture and the State colleges of agriculture, which provides that the organization and plans of work for each year shall have the approval of the Secretary of Agriculture. Provision was also made that the work should be administered for the department through the States Relations Service, in which there were organized two offices to have immediate charge of the work, namely, the Office of Extension Work in the South, representing 15 Southern States, and the Office of Extension Work in the North and West, representing 33 Northern and Western States. This plan and policy substantially as originally adopted is still in force.

Funds.—From 1915 to 1919 the total funds annually available for the extension work increased from \$3,600,000 to \$14,000,000. During the first three years of this period the ratio of State and Federal funds for this purpose was \$3 to \$2. With the large emergency funds available during the war the ratio was \$2 to \$3. In the funds provided for 1919-20 the ratio was again \$3 of State funds to \$2 of Federal funds.

Although the funds available for extension work in 1919-20 were four times as great as they were five years before, the amount of service that they would purchase was only about two and one-half times

what it was in 1915. For example, at the beginning of the period the average cost per county for supervision, salary, and expenses of county agents was \$2,600. At the present time it is \$3,600. Similarly the average for home-demonstration work was \$1,800 while at present it is over \$2,600. The average cost for a full-time employee during 1915 was approximately \$1,700. In 1919 the cost exceeded \$2,600. In other words, during the five years, 1915 to 1919, the average cost per agent increased between 40 and 50 per cent.

Throughout the period over 50 per cent of the funds available for extension work was used for county agricultural agent work. The proportion of the funds available for home-demonstration work, however, increased from 9 to 15 per cent and the funds available for boys' club work from 5 to 6 per cent. The proportion used for printing and distribution of publications amounted to only 2 per cent. The remainder of the funds was used for extension schools, the employment of subject-matter specialists, and administration.

Forces.—During the first year under the operation of the Smith-Lever Act 2,700 persons were employed in carrying on extension work, of whom 65 per cent gave their entire time to it and 25 per cent less than one-half time, whereas the number of extension employees for the year covered by this report was over 6,000, 88 per cent of whom devoted their entire time to the work, and less than 10 per cent worked less than half time. During the last four years the number of women employees increased from 754 to 1,964, and the number of men from 2,266 to 4,089.

When the Smith-Lever Act went into effect slightly over 900 counties, or over 30 per cent, had the service of a county agricultural agent and a little over 275 counties, or 10 per cent, had the service of a county home-demonstration agent. At the close of the period covered by this report 2,250 counties, or over 75 per cent, had the services of county agricultural agents, and 1,050, or 35 per cent, were served by county home-demonstration agents. The growth of the county-agent work is indicated by the fact that the number of farmers reported as cooperating in the extension work increased from about 100,000 in 1915 to over 275,000 in 1919.

The home-demonstration work, which grew out of the desire to do for the farm home what the county agricultural agent was already so successfully doing in improving farm methods and practices, was first established in the South as an outgrowth of the girls' club work. During the first year under the operation of the Smith-Lever Act only 6,000 adult farm women cooperated in the home-demonstration work. During 1919 over 125,000 women were so cooperating.

The success of efforts to develop extension work among farm boys and girls is indicated by the fact that in 1915 the enrollment in boys' and girls' clubs was approximately 250,000. In 1919 the enrollment

was about 614,000 and the estimated value of the club products was \$15,000,000. It is of interest to note that as the club work has developed the enrollment of girls has increased more rapidly than that of boys.

When the Smith-Lever Act went into effect the work of the specialists was carried on largely through extension schools and direct contact with farmers. As the work has developed, the activities of the extension specialists have been more and more coordinated with the program of work carried on by the local county agents. In 1915 26 per cent of the funds used for subject-matter specialists was expended in connection with extension schools and 15 per cent in connection with special dairy work. As the work has developed, the field of activities of the subject-matter specialist and the outlines of work have been more sharply defined. Dairying has been the field to which the largest amounts of money have been allotted. The next in importance has been animal husbandry. Following this comes agronomy and horticulture. In the beginning but little money was spent for marketing and rural organization work, but at the present time approximately \$200,000 is so used. Other subjects to which increasing attention has been given are rural engineering and poultry.

In view of the excessive turnover in extension workers and its harmful effect on the work, an investigation was made in the Northern and Western States concerning the length of service of county agents, as well as their reasons for leaving the service. It was found that since the work was started in the Northern and Western States in 1911, 2,108 men have been appointed and that 798, or 38 per cent, have resigned. The average period of service of the men resigning has been but a year and seven months. The average period of service of the men in the work on July 1, 1919, was a year and eleven months. The figures are even more striking if stated in another way. The ratio of appointments to resignations from 1912 to 1917 was approximately three to one, while for 1918 it was five to two, and for 1917 four to three. In large measure the shifting character of the county-agent force is at present chiefly due to unusual opportunities for larger compensation in farming or other pursuits, the competition of counties for the successful agents at advanced salaries, and to the hardships of the service, including such things as long and irregular hours, absence from home, long night trips to meetings, exposure to all kinds of weather, and the like. It is a strenuous service, requiring well-trained persons with a full measure of physical and mental energy, and good health.

The farmer's attitude.—An indication of the attitude of farmers themselves toward the extension work was obtained during the year from replies by 2,301 farmers in 143 counties in 17 Northern and

Western States to questions as to their opinion of the usefulness of this work. The counties in which the inquiries were made had had the services of county agents for an average of three years. Of the replies 58 per cent were favorable, 10 unfavorable, and 32 noncommittal. However, 86 per cent of those who knew the county agent and had actually come in contact with him were favorable to extension work.

EXTENSION WORK IN THE SOUTH.

ORGANIZATION AND ADMINISTRATION.

The same problems confronted the extension workers in the Southern States in 1918-19 as during the preceding year. Consequently, there was no cause for any material change of general plans or policies.

At the beginning of the year there were no visible signs of peace, so the paramount question to be kept before the farmers throughout the country was increased production of food and feed. The continuation of the emergency appropriation by Congress for stimulating food production made it possible to maintain the greatly increased field force for another year. The full benefits of the emergency appropriation were not felt until the new season, since the 1918 appropriation did not become available until the crops were already planted. By the beginning of the fiscal year 1918-19, however, the new agents had been assigned their territory and instructed as to their duties and the entire extension machinery was ready to render the greatest possible service. During the entire year the agents still found it necessary to devote much of their time to what might be called war duties, which under normal conditions would not be considered a part of their work. It is gratifying to report that they not only discharged these extra duties to the satisfaction of all concerned but at the same time accomplished greater results in their regular demonstration work than in any previous year.

There was an unusually large number of changes in supervisory and administrative officers, district and county agents, and also in specialists in the various States. A large percentage of the best qualified agents are constantly resigning to accept better paying positions with private concerns or entering some line of work for themselves. The question of salaries is becoming quite serious in the extension service, as well as in other branches of agricultural work. The most proficient men in all branches of agricultural and educational work are being forced by increased living expenses to seek employment in other lines because of the inadequate salaries being paid by the Government and State institutions.

At the close of the fiscal year ended June 30, 1919, there were 1,301 county agricultural agents and 1,050 home-demonstration agents. Of the 1,359 counties in the 15 Southern States 1,101 had county

agricultural agents and 799 had home-demonstration agents. A considerable number of counties employed more than one agent. In such cases the county contributed the larger portion of all salaries. Of the women agents, 57 were assigned to city work; and their duties were chiefly to demonstrate methods of conserving foodstuffs and to encourage home gardening among the urban women and girls. The total number of employees of all classes in the extension work was: Directors and State agents 29, assistant State agents and district agents 79, county agents and assistant county agents 1,124, negro agents 177. In the home-demonstration work there were 13 State agents, 82 assistant State agents and district agents, 763 county agents, 250 negro women agents, and 50 white and 7 negro city agents.

FINANCES.

The total amount available for extension work in the 15 Southern States in 1918-19 was \$5,730,475.83. Of this amount the Federal Government contributed \$3,695,823.25, including \$551,411.09 from direct appropriations to the States Relations Service for farm demonstration work, \$303,607.51 from appropriations to other bureaus of the Department of Agriculture, and \$1,097,134.18 under the provisions of the Smith-Lever Act. The States contributed \$947,134.18 to offset the latter two amounts. In addition there was available from State and college funds \$148,413.55, from county funds \$880,441.60, and from other miscellaneous sources \$58,663.25. These funds were used as follows: For administration \$360,092.23, county-agent work \$2,765,193.05, home-demonstration work \$1,502,707.78, boys' agricultural club work \$175,068.75, specialists \$839,882.38, and publications \$87,531.64.

PROGRAM OF WORK.

The working out and adoption of well-defined programs of work for the year, to be carried out in every State, was perhaps more largely responsible for the good results obtained than the increased number of workers. The system of community and county organizations was carried forward with much success and contributed in a large measure to the success of the programs of the various counties. By the adoption of a well-rounded program of work for a county, with the assistance of the leaders of the community organization, it was possible for the county and home-demonstration agents to reach in a direct way almost every man, woman, and child in their territory. The total number of local organizations of all kinds for assisting and supporting the county agents was 4,398, with a membership of 148,291. There is great variation in the kinds of organizations in the different States, but the objects attained by them are practically the same.

The foundation of the program of work for 1919 was a well-balanced system of agriculture. This necessarily provided for maintaining soil fertility, making the farm as nearly self-supporting as possible, and growing as much of the surplus cash crops as was possible under the conditions prevailing on each farm. The outstanding idea stressed was to be sure that every farm took care of its own needs first and then grew as much surplus for sale as could be attended to. Each State put on a campaign to acquaint the farmers thoroughly with the program. Unusual effort was made to show farmers the danger of turning back to the one-crop system of farming. The general result shows that while there was only a slight increase in the total cotton acreage there was a wonderful increase in the acreage devoted to other crops.

Two other outstanding features of the year's program were live stock production and marketing. More purebred live stock was brought into the South than in any previous year. More attention was also devoted to producing feed, maintaining pastures, building barns, and increasing the facilities for taking care of stock.

One of the most vital problems that had to be solved if the farmers of the cotton States were expected to continue the diversified cropping system which had been outlined to them was to secure a satisfactory market for all their surplus products, and especially their live stock. The cooperative marketing organizations in the various States, with the assistance of market specialists of the department, performed a wonderful service along this line, as indicated by the following incomplete statistics: Reports show that there were sold through the cooperative marketing associations \$25,256,310 worth of products, effecting a saving of \$2,812,564. There was also bought cooperatively \$5,776,203 worth, with a saving of \$1,355,189. There was a grand total of purchases and sales of \$34,354,886 and a total saving of \$4,547,418.

COUNTY-AGENT WORK.

It is recognized that the county agent, working individually, would never be able to meet enough people to bring about improvement in conditions as quickly as it should be done. For this reason unusual efforts have been made in the last few years to build up an organization in every county, where such a thing was possible, to support and assist the county agent. Through the community leaders of the local organizations he has what might be called assistants to take up any new project and carry it out in detail with all the people in the community. In this way he is able to reach practically every one who cares to be influenced in building up farming interest and rural conditions.

To reach any great number of the people directly has always been one of the main problems in extension work. The question is frequently asked: How many farmers are actually reached and to what extent do farmers participate in the activities of the extension organization? In reply it may be said that in 1919 the county agents in the Southern States made 933,013 visits and had 1,088,014 visits or calls upon them at their offices for information and 55,080 meetings were held under the auspices of the extension workers. There were 76,617 other meetings in which the agents participated, with a total estimated attendance of 3,317,741. The agents held 15,565 field meetings, with a total attendance of 472,456. They wrote 985,542 letters and prepared 53,449 articles for publication and issued 46,109 circular letters with a total distribution of 1,384,438. Through the agents there were distributed 808,464 publications of the United States Department of Agriculture and 633,163 publications of the State colleges of agriculture. The agents visited 78,620 schools and gave assistance in outlining agricultural courses in 4,277 of them. With their aid and advice 1,408 extension schools or short courses were held, with a total attendance of 112,882, and 50,128 demonstrators, cooperators, and club members made exhibits at fairs; 113,240 farmers selected seed; and 21,512 farmers grew improved seed for sale. Of course these figures represent only those who were actually listed or in some way came in personal contact with the agents. A rather minute inquiry into the real conditions indicates that possibly 90 per cent of the farming population is receiving some benefits, directly or indirectly, from the extension work.

The basis of the success of county-agent work in the South is the actual demonstration conducted by the farmer on his own land with the assistance of the county agent and the specialists. This was the original idea regarding the work, and all subsequent experience has proven that it was fundamental.

In 1919 the total number of acres in crop demonstrations was 2,664,723. The total number of farmers demonstrating was 246,982. The number of orchards used as demonstrations was 21,578. The county agents gave advice and counsel in regard to pruning, spraying, and otherwise treating a total of 5,729,831 trees. The county agents assisted farmers in bringing in 3,261 horses, 29,761 dairy cattle, 36,392 beef cattle, 33,704 hogs, 10,791 sheep and goats, and a great number of different varieties of poultry. As a result of their work 1,451 dipping vats and 3,343 silos were built, instruction was given to 164,543 farmers in the use of fertilizer, and 17,894 field demonstrations with fertilizer were made. Among other things done with the agents' assistance and advice were: Buildings erected, 7,294; farm buildings improved, 13,889; new building plans furnished, 4,499; home water systems installed, 2,929; home lighting systems installed, 8,841;

homes screened against flies and mosquitoes, 87,855; telephone systems installed, 11,036; farmers furnished plans and induced to adopt systematic crop rotation, 35,003; new pastures established, 19,582, old pastures renovated, 6,574, the total acreage of the two being 479,647; number of acres drained, 452,541; farmers induced to terrace land, 30,088; and total acreage terraced, 1,243,696.

Some of the lines of work taken up more or less on account of war conditions proved very helpful and probably will be continued when the extension work returns to normal conditions. One of these is the garden demonstrations which were carried on under a special agent in Alabama, Georgia, Louisiana, Maryland, North Carolina, Oklahoma, South Carolina, Tennessee, and Virginia, similar work being done in the other States through their regular forces. The marketing work, already mentioned as one of the special lines which received a great deal of attention, proved to be one of the most popular and successful pieces of extension work attempted. Another special piece of work that was successfully carried out through the county agents was the distribution of 216,599 tons of nitrate of soda sold direct to the farmers through the Bureau of Markets. In addition to these lines of work, more or less connected with farm operations, the agents were called upon to aid the various war activities not directly connected with their ordinary work. The extension organization, reaching into every State and almost every community, was a ready means of doing many things that could not have been done so efficiently in any other way.

NEGRO WORK.

Extension work among negroes continued to make good progress. The number of agents was considerably increased during the year and reached a total of 177 men agents and 250 women agents. A large number of the latter, however, were on a part-time basis. The negro agents work exclusively among their own people, but follow the same plans and furnish the same sort of instruction and assistance as do the white agents. The work done by the negro agents, however, does not represent all the service given negroes. Every white agent is instructed to help negro farmers in any way possible, and frequently negro farmers are the most enthusiastic and careful demonstrators listed by the white agent.

An index of the help that is being given the negro farmers is the fact that 30 per cent of the persons cooperating in demonstration work with corn and 18 per cent of the demonstrators with cotton were negroes. Of the boys' club membership, over 10 per cent was among negro boys. Of the girls' enrollment in home-demonstration work, 20 per cent were negroes, and of the women, 24 per cent.

There has probably been greater improvement in the quality of the work done by the negro agents than in any other branch of the

service. The leaders are, as a rule, extremely anxious to make good. The men who become agents are usually the best products of the negro industrial institutions and are proving very capable leaders.

The negro farmers deserve more than passing mention for the patriotic and loyal service rendered during the war in carrying out the Nation's program for increased food production. A negro organization known as the "United States Saturday Service League," originating in Alabama, and designed to bring about a sentiment among the negroes to render a full six days a week service during the war period has continued to grow and has been extended to several other States. The membership has largely increased and the organization promises to become permanent. The increased results due to the extra day's work each week have been very marked and the promoters of the plan hope to continue it, especially through the busy seasons of the year.

BOYS' AGRICULTURAL CLUB WORK.

In the Southern States the county agricultural agents have charge of the boys' club work and the home-demonstration agents have charge of the girls' club work.

The year 1919 was one of the most trying in the history of the boys' club work in the South. The discontinuance of the emergency appropriation combined with the loss of the war stimulus resulted in a marked reduction of paid and volunteer leadership. Nevertheless, the enrollment for the year exceeded the prewar enrollment by more than 40,000, indicating that although the county agents had many new duties imposed upon them they did not neglect the important one of encouraging and developing the club work. The total enrollment in the boys' clubs in 1919 was 158,738, including 16,515 negro boys, members of the so-called farm makers' clubs. The total value of club products was approximately \$8,500,000.

HOME-DEMONSTRATION AND GIRLS' CLUB WORK.

The great growth made by the extension work with women and girls in the South during the war was well maintained during 1919 despite the withdrawal of the emergency funds. This was made possible by a large increase in the local county funds appropriated for the purpose. The number of home-demonstration agents, which had risen to 1,232 during the war, was still 1,168 July 1, 1919. In 1919 there were 20,323 clubs of girls and women which had been organized by the home-demonstration agents. These clubs had a total membership of nearly 500,000, of whom about 200,000 were girls and 300,000 were women.

The home-demonstration and club work, as in previous years, included a variety of activities bearing directly upon the betterment

of rural home life. Among these were gardening, canning and other means of preserving foods, poultry raising, improving the family dietary, increasing home conveniences and comforts, and beautifying the home and its surroundings.

GARDENING.

Gardening is the largest of the productive activities engaged in by the club members. In 1919, 79,000 gardens were cultivated by girl club members and 219,000 by women members of home-demonstration clubs. In addition to the ordinary garden work, 74,513 women and girls cultivated winter gardens and about 3,000 new perennial gardens were established.

With regard to the perennial gardens, it should be explained that plantings in these are generally begun not later than the spring of the second club year, so that by the time a club member reaches the third or fourth year's work these gardens are in good bearing. This progressive plan helps greatly to hold the interest of club girls after they enter agricultural high schools and normal schools. These perennial gardens usually contain fruit or nut trees, grapevines, or small fruits and berries.

Particular attention has been given to the introduction of improved varieties of grapes, especially muscadines, and to the preparation of standardized grape products, not only for home use but for the market. A ready market is found for these products and thus another money-making industry is introduced into the country home. The 10 States in which muscadine grapes can be successfully grown report 34,788 vines planted, 25,228 gallons of grape juice made, and 41,613 pints of other grape products put up.

Among the newer or less known products especially suited to particular conditions of soil which are being grown as a result of the home-demonstration work, are New Zealand spinach, chayotes, dasheens, soy beans, Chinese cabbage, and pimientos. About 8,411 individual demonstrations in the introduction of these new vegetables were reported. The pimiento has become a generally known crop in the 10 States where it comes to maturity. In these States 5,756 demonstrators grew 80,185 pounds of pimientos in 1919, 19,332 pounds being sold fresh and 44,122 pints canned. In addition, 56,456 pints of products containing peppers as an ingredient were saved.

As indicative of the success of the productive work of the garden clubs it may be noted that 4,766,836 pounds of fruits and vegetables, valued at \$410,136, was sold fresh and used at home during the year in addition to the amounts saved by canning and other methods of preservation.

CANNING AND OTHER METHODS OF PRESERVATION.

On account of the excellent market for fresh fruits and vegetables, canning, drying, and brining were not stressed as much as in previous years. Nevertheless, the girls and women, under the guidance of the home-demonstration agents, put up 25,477,213 containers of fruits and vegetables, valued at \$7,232,231; dried 1,939,203 pounds of fruits and vegetables; and brined 796,105 pounds. The home-demonstration agents also assisted in the establishment of 537 community kitchens, 208 community canneries, 56 community drying plants, 51 curb markets, 185 new egg circles, 232 cooperative poultry breeding associations, and 132 rest rooms. They gave 35,368 demonstrations in food preservation; and, in addition, there were 40,248 demonstrations in food preservation given by women and girls who had been instructed by the home-demonstration agents. The latter have been especially valuable as a means of spreading helpful information and in developing local leadership among the girls and women.

Much success was achieved by advanced club members with standard and special packs of native fruits and vegetables in sauces, relishes, pastes, soup mixtures, and the like. Wild walnuts and hickory nuts are used in conserves and the hulls are made into a wood or floor stain, which is canned for future use. A great many gallons of this stain were used for home beautification during the year.

Canning and curing of meats, fish, and the like, continued to be an important feature of the work. The canning of pork products at the time of butchering, to prevent excessive consumption or spoilage of fresh meat at that time, is becoming an established practice in the South as a result of the demonstration work. In 1919, 161,599 containers of meat, game, poultry, fish, and similar products were canned and 11,047,239 pounds of meat and meat products cured or otherwise preserved. Of this, 6,823,396 pounds was smoked meats, 1,661,845 pounds sausage, and 2,561,998 pounds lard. The total value of the meat products saved was estimated at \$3,652,397.

The raising of Belgian hares and fish culture were encouraged as means of increasing the meat supply. In 8 Southern States 247 demonstrators are reported as raising Belgian hares, and in 7 States where conditions are favorable 167 fish ponds were established and stocked in 1919.

POULTRY.

Poultry work continued to be one of the leading productive activities of club members during 1919 and was pushed steadily all through the South with very satisfactory results. Both among girls and women there has been an effort to replace mongrel stock with thoroughbred. The 6,734 poultry clubs active in 1919 had a total

membership of 70,716, of which 47,701 were girls and the rest women. In addition there were 1,490 negro girls and women carrying on special demonstrations in poultry raising. Besides these regularly enrolled members, girls of the canning clubs also did poultry work. There were 15,000 demonstrators caring for the entire farm flock and also raising the feed for their flocks, 15,000 who bought standard-bred stock, 20,500 who bought purebred eggs, 11,883 who had standard-bred males at the head of their flock, and 4,148 who made brooders for their young chickens. A total of 15,002 poultry houses were built according to plans furnished by the agents. According to the reports received, club members raised 2,599,945 chickens, fattened 422,484 fowls for market, sold 1,542,407 pounds of market poultry, and produced 1,087,733 pounds of poultry consumed in the homes.

As a result of the work on egg production, 134,577 unproductive fowls were culled from flocks; 13,645 demonstrators produced infertile eggs, eliminating 10,714 roosters for this purpose; 531,264 dozen eggs, valued at \$209,471, were sold cooperatively, 910,833 dozen eggs were used in the homes, and 235,504 dozen were preserved in water glass; 32,602 standard-bred fowls, valued at \$60,193, were sold for breeding purposes; and 239,602 standard-bred fowls were retained to increase the home flocks. The total value of all poultry products for 1919 amounted to \$2,156,458.

DAIRYING.

The home-demonstration work in dairying during 1919, as in previous years, was directed especially toward encouraging the more liberal use of milk and dairy products in the diet. It is interesting to note that as a result of stressing the food value of milk 30,643 families were using more milk in their diet. In nine States 2,344 dairy cows were purchased through advice of the agents. Hot school lunches, including one milk dish, were introduced into 818 schools serving almost 20,000 children.

Marked progress was made in farm butter making both in quality and quantity. As first-class butter is a good source of income for the farm woman, the marketing of 4-H brand butter in standard cartons has been encouraged, but only after a liberal supply has first been used at home. The reports show that 733,865 pounds of butter was made by 9,132 demonstrators enrolled, a large part of which was sold at the average price of 57 cents a pound, 44 cents being the average price of ordinary country butter.

Interest in the making and use of cottage cheese to conserve meat continued to grow as a result of the demonstration work. The reports show that 1,022,655 pounds of cottage cheese was made in 1919 by 10,872 women and girls. Most of this was used at home, but 27,565 pounds was sold at an average price of 24 cents per pound. Eight States report 1,663,552 pounds of cream shipped by club women.

The progress of the dairy work is also indicated by the fact that 32,075 pieces of dairy apparatus and equipment were bought by club members, mostly with the proceeds from the sale of dairy products.

The dairy work was effectively promoted by means of educational exhibits and by State and county campaigns. During the year 66 exhibits were made at State, county, and community fairs, and milk campaigns were conducted in Arkansas, Florida, Mississippi, North Carolina, South Carolina, Texas, and Virginia. At present only four States, Florida, South Carolina, Louisiana, and Mississippi, have women State dairy agents who give full time to developing this work. In other States assistant State and district agents give part of their time to its supervision.

FOOD PREPARATION AND UTILIZATION.

In the home-demonstration work instruction in food utilization in the home is usually linked up closely with food production. For example, in connection with the garden work attention is called to the need of abundant vegetables and fruit in the diet and proper methods of preparing vegetables and fruits for the table are taught. In poultry work the use of eggs and poultry on the home table is urged, accompanied by instructions in the cooking and serving of such foods. In the dairy work every opportunity is improved to stress the importance of milk in the diet, especially that of children. Particular attention is called to the numerous ways in which milk may be incorporated in the daily meals aside from its use as a beverage, and instruction is given in the preparation of cream soups, chowders, creamed vegetables, cottage-cheese dishes, junket, and other milk desserts, cocoa, and other dishes in which dairy products are used.

In connection with demonstrations in bread making the place of bread in the diet is explained and the importance of having good bread, well baked, is emphasized. During 1919, 30,859 women made quick or yeast breads under the direction of home-demonstration agents, and 1,600 women purchased bread mixers.

Instruction in the use of the steam-pressure cooker, both in cooking and in canning certain kinds of vegetables, received particular attention during the year. A total of 2,171 demonstrations in steam-pressure cookery were reported from six States. Demonstrations in the use of the pressure cooker in so-called "summer cookery" were particularly popular, since they afforded an opportunity to explain not only what foods should enter into the summer diet but how the time spent in the hot kitchen may be reduced to a minimum by the use of the pressure cooker. Eight States report a total numbering more than 1,750 steam-pressure cookers bought in 1919.

HOME IMPROVEMENT.

Questions of home management, comfort, convenience, and beautification continued to receive much attention during the year. Sanitation was emphasized especially in connection with canning. Club members are impressed with the fact that assurance of sanitary conditions in canning is one of the best advertisements of the products.

Funds derived from the sale of the surplus supply of fresh fruits and vegetables, canned goods, and other club products have, under the advice of the home-demonstration agents, been used to a large extent in the purchase of home conveniences and equipment, which make for efficiency and comfort. There were 2,274 club girls in school paying all or part of their expenses from money earned in club work.

As a means of promoting economy and thrift, 8,194 women were induced by the home-demonstration agents to keep regular household accounts, and about 7,487 to plan yearly household budgets.

During 1919 extension specialists in clothing and textiles were employed in five States in teaching the older club girls selection of dress goods and millinery; making, care, and remodeling of clothes; and renovation and refurnishing of rooms. They also encouraged thrift by inducing the girls to keep account of money spent for clothing. Making articles for their own use proves most interesting to the girls and is often the means of introducing improvements throughout the home. During 1919 the following articles were made by regularly enrolled club girls: Sewing bags, 13,738; holders, 16,457; towels, 21,694; caps and aprons, 20,540 each; uniform dresses, 5,659; luncheon sets, 460; and miscellaneous articles, including emblems, 140,982.

The women are interested and helped especially in the work of improving and beautifying the interior of the house, in the remaking or remodeling and care of clothing, improving laundry methods and equipment, and selecting dress goods and millinery. Women's club meetings are often turned into "remodeling days" when suggestions and assistance are given in needed renovation of dresses and millinery. In some cases merchants in small communities have been helped in the selection of dress goods and millinery for sale in their stores, and in this way women of the community are enabled to get more suitable materials than would otherwise be found in the small stores. Eleven States report 1,642 demonstrations in clothing and 719 demonstrations in laundry equipment and methods.

Home improvement and beautification is looked upon as a crowning feature of the home-demonstration work. It is slower in development than the productive or money-making enterprises and is largely dependent upon their success. It divides naturally in two parts; first, that which has to do with the house itself, remodeling, building,

and equipping with labor-saving conveniences and suitable furnishings; and second, that which deals with the plantings in the surrounding grounds and the general improvement of the farmstead.

Suggestions for remodeling or renovation of the house, especially with reference to the arrangement of working space, as in the kitchen, and the installation of labor-saving devices, proved to be much in demand during the year. Under the direct advice and counsel of the home-demonstration agents 1,526 water systems, 2,677 lighting systems, and 382 heating plants were installed; 19,270 kitchens were rearranged; 2,103 washing machines and 7,345 other pieces of laundry apparatus were purchased; and 123,351 labor-saving devices, such as fireless cookers, iceless refrigerators, kitchen cabinets, wheel trays, and the like, were made or purchased. In addition 1,163 new homes were built and 2,736 homes were remodeled or improved under the advice or direction of the home-demonstration agents. The home surroundings were improved at the suggestion of the agents by the planting of 20,977 trees and 26,967 shrubs and vines, and 29,975 front yards were made more attractive.

CHILD-WELFARE WORK.

Eight States engaged in child-welfare work as a part of the home-demonstration work in 1919. They report 2,115 demonstrations in child feeding, as well as considerable activity in stimulating general interest in this subject. The active cooperation of school authorities as well as physicians, dentists, public health nurses, and Red Cross workers was enlisted, and thousands of children were carefully weighed, measured, and examined for defective teeth, malnutrition, and other defects or deficiencies. As a result the parents were given reliable advice as to proper treatment required or the care and feeding which may prevent or remedy these defects. Interest was developed to such an extent that many counties appropriated money to employ a public health nurse to continue the health work regularly. One of the very valuable results from this awakened interest in child welfare is seen in the fact that 818 schools during 1919 arranged to serve hot lunches, or at least one hot dish containing milk to supplement the cold lunch brought by the pupils from home.

RURAL HEALTH.

The terrible epidemic of influenza during the winter of 1918-19 and the dearth of trained nurses made many housewives realize their own lack of knowledge as to invalid diet and home care of the sick. A great many requests for work of this sort were made and the home-demonstration agents rendered valuable service in training women along this line for future emergencies. Every State reported greater interest than ever before in the subject of health. Six States reported

a total of 1,380 demonstrations in invalid cookery, 3,219 in milk cookery, and 5,000 in the utilization of green vegetables. Numerous community health campaigns were conducted and their influence was reflected especially in the increased use of homemade and purchased screens, fly traps, and swatters. Nine States report 7,235 houses or kitchens screened during the year and large numbers of fly traps and fly swatters put into effective use.

The home-demonstration forces have had a most gratifying measure of success in stimulating widespread interest and activity in all matters affecting the health and well being of the individual, the family, and the community.

SPECIALISTS.

During the year there were employed at the agricultural colleges in the Southern States, partly in cooperation with the department, 209 full-time and 58 part-time extension specialists in the following subjects: Dairying, cattle, sheep, pig, and poultry production; animal disease; horticulture; agronomy; forestry; plant pathology; entomology; beekeeping; farm management; farm engineering; and marketing. The relations between the specialists, the county agent, and other extension workers continued to develop with the best of understanding. In practically all cases the specialist and the county agent planned their work cooperatively. In every State great progress was made in planning itineraries of the specialists so that there was greater economy of time and travel. The specialist rendered valuable service by speaking and giving practical demonstrations at meetings, arranging and looking after exhibits at fairs, assisting in judging at fairs, preparing extension publications, and giving the county agents advice and assistance in a variety of ways.

Representatives of the Bureau of Animal Industry, Bureau of Plant Industry, Bureau of Entomology, Bureau of Biological Survey, and Bureau of Markets cooperated in the work of the extension specialists as follows: In dairying, poultry, animal husbandry, livestock diseases, crop diseases and pests, insect control, rodent pest control, and marketing and distribution of agricultural products.

EXTENSION WORK IN THE NORTH AND WEST.

OUTSTANDING DEVELOPMENTS.

Effect of emergency expansion.—With the signing of the armistice in November, 1918, the urge toward the further expansion of the extension system in the Northern and Western States perceptibly slackened. At the close of the year ended June 30, 1919, the total force, including supervising officers, employed in the extension work in the 33 Northern and Western States was 3,194. Of this number, 1,412 were engaged in county-agent work, 650 in club work, 602 in home-demonstration work, with approximately 530 specialists, a net de-

crease in the total staff of about 21 per cent during the year. The year closed with 1,211 of the 1,596 agricultural counties covered by a county or district agent, with more than 230 permanent county home-demonstration agents and 150 full-time county club agents, supplemented by a fairly adequate staff of extension specialists in all the major lines of work. So large a staff was not thought possible under the normal development of the Smith-Lever Act before 1923, when the act reaches its maturity. This development was made possible only because of the emergency funds provided by Congress and because of the splendid response of farmers in cooperation with the Government in organizing and helping to finance the system.

Local organization.—The plan of organizing a county and communities into what is commonly known as a county farm bureau has been continued and the membership increasingly extended to include the farm women and the boys and girls. There were approximately 800 such farm bureaus in 1919 with a total membership of more than 500,000 rural men and women. It is with such groups of people that extension plans best suited to the needs of each community are worked out and put into effect. In 22 of the 33 States, State federations of farm bureaus have been organized by the farmers themselves and these are beginning to function in a State-wide way much as the counties do locally.

State legislation.—Following an assembling of State legislatures in 1918 many amendments and new laws relating to extension work were passed. Practically all the Northern and Western States now permit counties to appropriate funds in support of extension work and nearly all provide that such funds may be used for the employment of county agents, home-demonstration agents, or boys' and girls' club leaders. This is indication of the estimate the public is placing on extension work.

Finances.—The total fund available for extension work in 1918-19 in the Northern and Western States was \$8,931,084.67. Of this amount the Federal Government contributed \$5,343,218.13, including \$415,185.48 appropriated directly to the States Relations Service for farm demonstration work, \$631,766.13 from appropriations to other bureaus of the Department of Agriculture, and \$1,441,693.86 under the provisions of the Smith-Lever Act. As an offset to the latter two amounts, the States contributed \$1,111,693.86. In addition, there was available from the State and college \$753,414.94, from county funds \$1,410,767.70, and from other miscellaneous sources \$311,990.04. These funds were used as follows: For administration \$570,566.01, printing and distribution of publications \$176,085.34, county-agent work \$4,359,307.85, extension work with women \$1,386,502.72, boys' and girls' club work \$746,552.63, and for extension specialists \$1,692,070.12.

COUNTY-AGENT WORK.

The fiscal year 1919 closed with county agents in 1,106 counties and 45 district agents covering 105 additional counties in the Northern and Western States. The maximum number of agents employed was reached shortly after the signing of the armistice in November, 1918, at which time 1,296 counties were being reached by agents on a county (1,136) or district (67) basis. The decrease in counties served thus shown was due to the slowing down of the aggressive campaign for further emergency appointments of county agents following the cessation of hostilities, the resignation of a considerable number of men who had taken up the work purely as a war service, withdrawal of financial support by local war organizations, and reduction of the number of district agents who had been supported largely by emergency funds. On the whole, the decrease in force was very slight considering the rapid expansion of the work with emergency funds. The number of county agents increased more than 100 per cent from August 10, 1917, when the emergency funds became available, to December 1, 1918.

DEVELOPMENTS IN ORGANIZATION AND PLANS OF WORK.

Community committees.—The activities of the county agents during the year were necessarily primarily concerned with war projects. This very fact promoted attention to a more intensified program. The very gratifying results which came from a definite and limited program demonstrated the value of such a plan in regular county-agent work. The war taught country people to work together with a definite goal and then “go over the top.” In attaining these goals, community effort was stimulated and community consciousness, often for the first time, developed. This began to show in community programs of work wherein a committee of leading farmers, working with the county agent, developed a plan of extension work suited to the special needs of the particular community. The value of a community program over the former county program plan is at once apparent, though its success demands that the farmer assume a much larger responsibility for the work than formerly. This in itself was an end particularly to be desired.

Coordination of extension effort.—The war work helped also to break down what might be termed “project consciousness” on the part of State and National leaders. More attention was concentrated on getting the work done and less on personal or official credit. More or less artificial barriers were broken down and local extension agents—county agents, home-demonstration agents, club agents, and others—began to think together, plan together, and act together, to develop and execute a common plan of work.

Demonstrations.—The basis of all county-agent work, viz, successful demonstration, was seriously interrupted during the whole war period and particularly during 1918. The work partook more of the nature of "campaigns" for wheat production, home gardens, corn production, hog raising, and the like. Much of the county agents' time was taken up in collecting and distributing farm seeds and breeding animals, making available farm labor, collecting statistics, making surveys, and a vast amount of "emergency" work for National, State, and semipublic organizations engaged in war work. This was the service most needed for the moment and was patriotically performed by the agents although it meant to a considerable degree the abandonment of their demonstration work and attention to multifarious details necessary to the successful execution of the special work undertaken. Notwithstanding the interruptions, the demonstrations reached 677,635 people and the profit on demonstration areas alone over the ordinary farm practices amounted to \$22,200,000 for the calendar year 1918, or more than five times the cost of the regular and emergency county-agent work to the Government, States, and counties. The number of demonstrations per agent for the calendar year 1919 increased by more than twenty.

Readjustment.—The spring of 1919 was devoted to program making with the return to sound agricultural practices in mind. Increased food production was still understood to be important from a world standpoint, but permanent agriculture demanded as quick return as possible to established sound practices involving rotation systems and balance of crop area to live stock. War conditions and consequent disturbed transportation and marketing facilities and the effect of price fixing and price control brought acutely to the minds of farmers a realization of the importance of economic and of business factors which basically affect the farming industry and the value of organized effort. In planning for agricultural readjustment, the farmer properly turned to the county agent with insistence that these considerations be given fundamental attention. This enlarged vision was reflected everywhere in county, community, and State programs of extension work in 1919.

SOME RESULTS OF THE WORK.

General.—That the work was rapidly returning to normal during the year, with strong emphasis on what may be termed the economic aspects, is indicated by the following brief summary of some of the results for the crop year 1919:

A total of 90,660 demonstrations were conducted. These involved almost every phase of crop and live-stock production. Worthy of special reference are seed-corn selection, seed-corn testing, wheat varieties, wheat-smut control, oat varieties, oat-smut control, potato-

disease control, bean-disease control, alfalfa introduction, sweet-clover introduction, soy-bean introduction, orchard spraying, pruning and cultivating, cow testing for production, demonstrations involving construction of silos and feeding of silage, drainage demonstrations, irrigation demonstrations, effects of fertilizers and limestone, extermination of rodent and insect pests, weed control, black-leg vaccinations, hog-cholera vaccinations, and poultry culling.

In connection with the demonstrations 55,465 meetings were held which were attended by nearly a million people. In carrying on their demonstrations and project work, the county agents visited 284,187 different farmers and made a total of 510,243 farm calls; they received office calls for advice from 1,412,200 farmers; participated in 81,156 meetings with a total attendance of 3,580,963; and organized 7,000 boys' and girls' clubs with a total membership of 91,400.

Crop projects.—In the work with farm crops, 216,408 farmers were assisted in selecting enough seed corn in the fall to plant 7,042,936 acres; 99,225 farmers were assisted in treating seed oats for smut in sufficient quantity to plant 1,699,895 acres; and 40,473 farmers were assisted in treating enough seed potatoes for disease to plant 186,045 acres.

The work relating to live stock.—The matter of live-stock improvement received renewed attention during 1919, with the result that 10,025 registered bulls, 16,584 registered cows, 4,017 registered rams, 8,925 registered boars were secured for farmers, while 16,876 registered sires of all kinds were transferred from one community to another, thereby increasing their period of service. In addition, 437 cow-testing associations were organized with a membership of 11,656, the total number of cows under test in these associations being 170,748; 653 live stock breeders' associations were organized with a membership of 28,396; 163,000 animals were tested for tuberculosis and 397,666 for blackleg; 68,223 hogs were treated for hog cholera in connection with demonstrations; and 1,372,713 hogs were vaccinated for cholera by farmers or veterinarians on the suggestion of the county agents.

Farm business.—Nearly 100,000 farmers were assisted in starting farm accounts, and 13,872 were given assistance by the agent in summarizing their accounts at the end of the year. These are from a number who started keeping accounts in the year previous. Farmers who made profitable changes in their business as a result of record keeping amounted to 4,402; 531 farmers' exchanges were organized in 1919, which did a volume of business amounting to \$40,275,349. The agents assisted in the organization of 1,091 other purchasing and marketing associations, which did a business amounting to \$20,486,828. The total cooperative business conducted through farmers' exchanges

and purchasing and marketing associations organized by county agents, therefore, reached the total of more than \$70,500,000, with an approximate saving to farmers of nearly five and a half million dollars. Through the aid of the county agents 254 farm-loan associations were organized and 11,939 farmers assisted in securing credit for the purchase of machinery, seeds, fertilizers, and supplies. The labor bureaus started by the agents under war conditions were continued in most cases and through these bureaus 118,891 laborers were furnished.

Rodent and insect pests.—The extermination of rodent and insect pests continued to be an important project, especially in the Great Plains and Western States, and this work involved 175,978 farmers and covered an area of 28,699,344 acres.

OUTLOOK.

The outlook for the county-agent work is most encouraging. The work has passed through a period of expansion far beyond anything contemplated when it was started, and at the end of the year was at least three years in advance of its normal development. It withstood the crisis of a sudden withdrawal of Federal funds, which were more than replaced by local funds, and the net loss in number of agents was negligible. The war service of the agents was so highly appreciated by the farmers that they are insisting, as never before, on the continuation of the work and on satisfactory local appropriations for its support.

EXTENSION WORK WITH WOMEN.

Extension work with women developed rapidly under the spur of the war emergency from the service of a small group of home economics extension workers and home-demonstration agents in 1917 to a well-defined force of several hundred women, whose work was liberally supported by Federal emergency funds, in 1918 and 1919. With the end of the fiscal year 1919 Federal emergency funds were withdrawn and the number of workers diminished more than 50 per cent.

HOME-DEMONSTRATION AGENTS.

On June 30, 1918, there were 803 home-demonstration workers in the North and West, including leaders and assistant leaders. On June 30, 1919, the number of home-demonstration workers had decreased to 609. This reduction was due to uncertainty following the signing of the armistice with regard to funds for continuing the work.

While at its close the year showed a decline in the number of field workers it had some encouraging features, viz, there was then a home-demonstration leader permanently located in every one of the Northern and Western States, with an assistant in some, where there

were but six such State leaders at the outbreak of war; and there were 234 permanent county home-demonstration agents where there were but 15 in 1917, with the work in the counties firmly established as an extension enterprise supported both morally and financially by the farm folks themselves.

On June 30, 1919, there were 15 States employing full-time extension specialists in home economics on Smith-Lever funds, the total number of such workers being 49. The following distribution of the work as to subjects is reported: General home economics, 16; food and care of children, 18; clothing, millinery, and home furnishing, 10; hygiene and home nursing, 4; poultry, 1.

ORGANIZATION.

With but few exceptions home-demonstration work has been carried on in counties during the past year through a permanent organization of the people, in which the interests of the home and women's part in community development have been coordinated with the interests of agriculture. During the past year all the States have endeavored to develop a community organization. Reports from 29 out of 33 States show that 338 counties have been at work on lines of work suggested by themselves. The only States not reporting definite county programs are Indiana, Oregon, Pennsylvania, and Wisconsin. Some of the counties which adopted a program of work are without home-demonstration agents, but the women have organized local committees and appointed local leaders, and with the assistance of State leaders and specialists and their county agricultural agents are carrying on home demonstrations among themselves until such time as funds may be available for the support of home-demonstration agents.

SOME RESULTS.

In the home production of foodstuffs in 1919, 31,460 gardens were planted, the produce from which was valued at \$421,911; 3,212 poultry flocks were culled, eliminating 107,445 nonlaying hens, thereby greatly lessening the cost of egg production and increasing the farm woman's profits; and 635 local women were given special training in home butter and cheese making and through demonstrations passed on information to 16,095 housewives.

Food preservation was extensively carried on throughout the country. The total results reported were 1,894,099 quarts of canned fruits and vegetables, 433,621 quarts of jams and jellies, 386,989 pounds of dried fruits and vegetables, 76,389 quarts of brined vegetables. The total value of the preserved fruits and vegetables is estimated at \$873,084. The home preservation of meats has been extensively carried on through the efforts of the home-demonstration agent. Reports show that 63,989 quarts of poultry, 55,047 quarts of beef, and

25,676 quarts of pork, valued at \$117,349 were canned; 440,948 pounds of pork, valued at \$116,136, was smoked or pickled; and other meats, such as sausage, game, rabbit, and fish, amounting to 136,618 pounds, were preserved for home use. It is probable that the reported figures fall far below the actual total of food-preservation activities of the women influenced by home-demonstration work.

Feeding the family, especially children and infants, along more rational lines was a project in practically every State in the North and West in 1919. Hot lunches were established in 2,386 schools in 169 counties, more and better milk introduced in the diet of children, and wiser selection of food and meal planning emphasized in 268 counties. The total number of children reached in 1919 through the hot school lunch was 60,022 and 5,223 children are reported as showing a marked improvement in mental alertness and health as a result of this hot school lunch and the increased use of milk at home.

The epidemic of influenza during the winter of 1918-19 stimulated an interest in the simple rudiments of home care of the sick and in consequence 202 counties reported definite programs in teaching home nursing, personal hygiene, and sanitation. Through the efforts of home-demonstration agents 31,729 families were given instruction along home health lines.

With a view to saving labor, time, and effort, as well as equipping the farm home with modern appliances, 166 counties have adopted the home-convenience project with the result that 659 farm families secured washing machines, 3,623 fireless cookers, 1,452 pressure or steam cookers, 594 driers, 428 power machinery, 473 installed water systems, and 1,169 rearranged their kitchens.

Lessons on thrift, learned during the war, have centered attention upon the clothing project, which was adopted by 173 counties with the result that 45,952 garments were made or remodeled at an estimated saving of \$280,036.

The business side of housekeeping has been of special interest in 93 counties and 6,427 families have been induced to keep expense records, while 1,260 families have been led to use a system of budget making in apportioning household expenses.

A study of conditions in the individual home has deepened the interest and broadened the horizon of men and women in community affairs with the result that 462 community kitchens used as food, canning, drying, or demonstration centers and milk stations, have been established; 68 cooperative buying and selling associations, with a membership of 12,905 and conducting a business valued at \$45,927, formed; 191 salvage shops opened; and 58 community rest rooms and 96 recreation centers established.

In carrying out their work the home-demonstration agents have visited 74,588 women, and 117,073 people have called at the home-

demonstration agent's office on matters relating to home-demonstration work; 53,812 meetings and demonstrations, attended by 2,038,779 people, were held under the auspices of the home-demonstration agents; and 2,549 boys' and girls' clubs were organized with a membership of 2,619 boys and 21,333 girls.

RURAL HOME SURVEY.

One of the features of the year's work was a survey made for the purpose of learning some of the more important problems of farm women. About 10,000 records, representing as many farm homes, were secured and tabulated, and have been given publicity. The results bring out clearly some of the problems of farm women and show their interest in the home-demonstration agent who is bringing to them not only personal and group assistance, but an outlook that is helpful and inspiring.

OUTLOOK.

The year 1918-19 marked the real beginning of organized home-demonstration work with women on a broad, permanent basis, conforming to the all-embracing idea of community self-determination and leadership. This work, which began largely as an "overhead" movement, has now crystallized into plans made and carried out by homemakers themselves, assisted and guided by home-demonstration agents and such specialists as the State agricultural colleges and the Federal Department of Agriculture are able to supply. Thus from a type of organization, in which the few assumed responsibility and derived the benefits, the movement is toward an ideal partnership between the scientific worker and the housewives whom she serves. We have as yet but glimpsed the possibilities of home-demonstration work as a means of discovering and developing latent rural leadership and power, and of stimulating in the women of the country the habit of observing and analyzing home and community conditions under which they live and of taking organized action to shape these conditions so that they may yield a richer and more satisfactory country life.

BOYS' AND GIRLS' CLUB WORK.

READJUSTMENT.

The fiscal year ended June 30, 1919, saw the return of boys' and girls' club work to a peace-time basis. The chief change in the work during this period was the increased tendency to make the work conform more largely to the agricultural and home needs of each rural community as determined by the people themselves. This policy is the outgrowth of the organized county extension movement throughout all the Northern and Western States, whereby it has been made

possible for farm people to express themselves as to their agricultural home and community needs and secure the help of extension forces in carrying them out.

IMPROVED LEADERSHIP.

Club leadership was distinctly improved during the year. Full-time county club leaders with adequate agricultural training were employed to take the place of district and part-time leaders wherever available funds made such full-time, permanent club leadership possible. Accumulated experience seems to warrant this course as the surest way of developing the work on a sound permanent basis of helpfulness and as a means of enabling boys and girls to contribute substantially in demonstrating improved methods and practices in farming and home making as well as in making rural life attractive to them.

Increased efficiency has also been effected in two other ways—first, by holding club leaders' training conferences, and, secondly, by a greater use of the leaders thus trained in helping the more inexperienced local club leaders on the problems in the field and showing them how best to solve them. The leaders held 2,845 State and group conferences, resulting in the training of 20,961 men and women to further the work. In many instances where there was a full-time county club leader, frequent conferences of the local volunteer leaders who gave of their time to this type of community service were also held. In addition, many former club boys and girls served as local leaders. Through this training in leadership the community becomes an increasingly effectual force in solving its own problems.

STANDARD CLUBS.

In order that more definite farm and home demonstration work might be done, and in order to develop the social life and a wholesome community spirit, especially in the scattered rural sections, the Standard Club,¹ adopted in 1918, was strongly encouraged. During the fiscal year 1919, 3,454 such standard club groups of boys and girls were organized.

One of the outgrowths of the standard club idea has been the development of a more definite aim in club work in addition to that developed through the county extension organization. Examples of this idea are found in the "\$1,000" poultry clubs, "ton-of-pork" pig clubs, "1,000-jar" canning clubs, and other types of cooperative work where the club functions as a group, thus teaching cooperation and team work. Where this plan has been carefully tried out, it is believed to be one of the most significant developments in club work.

¹ For further information on standard clubs see U. S. Dept. Agr. Circ. 66, p. 12.

CLUB DEMONSTRATION TEAMS.

During 1919 boys' and girls' club teams, usually of two or three members each, gave 27,965 demonstrations to the public, with an attendance of 534,973. These teams demonstrated to thousands of people throughout the Northern and Western States better practices which were being furthered through the county extension organization. Parents are drawn to such demonstrations because of the boys and girls, but go away exponents of the practices taught. In this way boys and girls, through organized club effort, become a potent factor in carrying out the community program of work.

During the year, demonstrations were given in canning, drying, garment making, butter making, bread making, poultry culling, cow testing, and seed-corn selection, as well as other agricultural and home-making activities. Thus, boys and girls are led to look beyond their own immediate needs and opportunities by taking a definite part in solving the farm and home problems of the community.

OWNERSHIP AS A RESULT OF CLUB WORK.

There are constantly coming to the attention of leaders instances of how club work undertaken by boys and girls has developed greater opportunity to earn money and accumulate property. For example, the 222 club members in attendance at the Eastern States Exposition, of whom 75 per cent had been in club work from 2 to 9 years, reported that they had invested \$29,353, and owned 10 horses, 97 pigs, 54 sheep, 95 calves and cows, 2,400 fowls, 1 city lot, and farm land valued at \$7,100, farm and home equipment valued at \$617, and 4 automobiles. This factor of individual ownership, leading to partnership and proprietorship in the farm business is developing everywhere and has greatly improved the outlook of rural boys and girls.

LEADERS' ACTIVITIES.

During the year cooperative club leaders gave 11,283 demonstrations with a total attendance of 492,559; made 100,543 personal visits to club plats and members; helped organize 161 county extension organizations; gave training to 20,961 leaders; conducted 75,216 meetings with an attendance of 1,347,964; held 2,311 exhibits and 1,147 club fairs and festivals with an attendance of 1,298,104; and planned 2,001 achievement day meetings as fitting close to the year's work.

In addition, the work was reinforced by the distribution and use of 1,492,500 pieces of follow-up club instructions furnished by the Washington office, and 2,230,956 circulars furnished by the State colleges of agriculture.

SOME FIELD RESULTS.

Considering the fact that the fiscal year 1919 was one of readjustment, marked achievement was shown from the standpoint of food and clothing produced and conserved, and in the value of crop and live-stock products, as well as through improved social conditions affecting the rural farm home and community.

The boys and girls reporting in the Northern and Western States produced during the calendar year 1919 garden products valued at \$786,477; canned 1,047,746 quarts of food products, including fruits, vegetables, and meats, and dried 14,540 pounds of similar products; grew for market or home use 1,858,953 pounds of pork; raised 29,230 farm animals, the major portion being pure-bred stock; made and repaired for home wear 70,340 garments; baked 210,373 loaves of bread; prepared and served 188,802 cooked foods, as well as 54,440 meals for the family and others; grew for sugar 2,301 tons of beets, and produced 213,772 bushels of potatoes, besides assisting liberally in food production through the growing of baby beeves, poultry, rabbits, corn, beans, and other crops. In addition, the members of the home-making clubs performed definite household tasks throughout the year, sharing in the labor of the home and becoming responsible members of the family.

Of the total club enrollment of 306,241 members, 157,102, or 51 per cent, completed their work and reported the production of \$4,764,948 worth of products in the various club projects.

The direct influence of club work upon the boys and girls, and upon the community in which these boys and girls live, should doubtless be emphasized more than the value of the products grown and conserved. There are many instances throughout the country where better live stock, greater yields per acre, and a pleasanter and more comfortable home life have resulted to a measurable degree from boys' and girls' club work. Cognizance should also be taken of the fact that 4,590 club members, most of them prize winners, attended junior short courses in the counties and at the State agricultural colleges during the year; and that 1,257 scholarships, enabling boy and girl club members to take the regular work at these institutions, were also awarded for notable achievements in club work.

EXTENSION SPECIALISTS.

The war-time demand for increased food production and greater economy in the use of food and clothing necessitated a rapid expansion of the system of county agent, home-demonstration agent, and boys' and girls' club work. With the increase in the number of the extension agents came an increased demand upon the State colleges of agriculture and the United States Department of Agriculture for

technical advice and assistance to these agents and the farming people along subject-matter lines. The county agent, for example, in dealing with farmers and rural communities is called upon for specific practical assistance and the latest word on a multitude of subjects, such as field crops, soils, fertilizers, horticulture, animal husbandry, dairying, poultry, plant diseases, animal diseases, biology, forestry, marketing, farm management, rural engineering, human nutrition, home health, clothing, home management, etc.

It is practically impossible for a county agent, without outside assistance, to meet adequately these varied demands. Therefore, the colleges and, to a limited extent, the Federal Department of Agriculture have from the outset added specialists in subject matter to the extension forces for the purpose of reinforcing the county agents, home-demonstration agents, and county club leaders in their work, and also for the purpose of giving assistance to farmers and groups of farmers in counties not at present having the advantages of county agents.

The number of extension specialists employed on June 30, 1919, was approximately 470 full-time, 101 half-time, and 62 less than half-time specialists. Of this number about 58 were giving special assistance in field crops, 48 in animal husbandry, 45 in dairying, 34 in farm management, 54 in home economics, 34 in horticulture, 44 in poultry husbandry, 22 in rural engineering, 18 in marketing, 15 in plant pathology, 16 in control of rodent and other animal pests, 16 in entomology and beekeeping, 7 in forestry, 5 in animal diseases, etc.

The various campaigns carried on during the war period, such as those for increased wheat, meat, milk, and cheese production, rodent pest control, poultry raising, and gardening, were all organized and conducted largely under the general supervision of the respective extension specialists concerned, the county field agents largely relying upon the technical knowledge of the extension specialists in planning and organizing the work.

The number of extension specialists needed in reinforcing the county extension agents for an efficient extension system has not yet been fully worked out or relationship and responsibilities adequately determined, but all are agreed on the necessity of such extension specialists, and no year since the passage of the Smith-Lever Act has seen greater progress made in correlating the work of the specialists with that of the county agents than during the year 1919. The agricultural colleges and the Federal Department of Agriculture, as well as the various county extension agents, are keenly alive to the need in extension work of highly trained and competent specialists who are at the same time good organizers and of a cooperative disposition.

FARM-MANAGEMENT DEMONSTRATION WORK.

The staff conducting the farm-management demonstration work in 1919 was composed of a leader, 22 demonstrators, and 12 assistant demonstrators. All the demonstrators and assistants were employed cooperatively by the department and the college and located in the States. The program for the year was largely planned to meet the demand for information on more efficient farm operation. Emphasis was placed on training the county agents and other agencies in bringing to farmers in terms of their own business the principles of efficient farm organization and management. The method employed, in the main, has been to get farmers together in groups for instruction in recording, summarizing, and analyzing farm business records through the use of farm account books. As many as 50,000 of these books have been put in the hands of farmers in single States through the aid of county agents and bankers. Bankers have cooperated heartily in the work, distributing the larger portion of the books, the expense of which they have met as a service to their patrons. The change from individual to group work put the project on a basis that offers substantial instruction to a large number of farmers in any county having a county agent. Other important lines of work include cost accounts on separate farm enterprises, fair exhibits, and tenancy contracts.

The interest manifested by banks and other institutions promises much toward future success of the work. The necessity for farm accounts, due to the income-tax law, and the greater need for a well-organized correlated farm business in these times of high costs is making farm-management demonstration work one of the most important extension projects.

FARMERS' INSTITUTES.

During the year ended June 30, 1919, farmers' institutes were held in 35 States. In 16 of these States the institutes were in charge of State officials. In the other States they were in charge of the extension divisions of the State agricultural colleges. Farmers' institutes were aided by distribution of publications and lantern slides and other illustrative material especially suited to the work, and by compilation of data and distribution of information regarding such work in this and other countries.

There was a marked increase in the interest of farming people in this work during the year, indicating their desire to hear, through this means, more directly from successful practical farmers. Other phases of extension activity bring the specialists from the colleges of agriculture in contact with the farmers throughout the greater part of the year, usually through county-agent channels, while the farm-

ers' institute is now being more generally regarded by farmers as a means of enabling them to compare and discuss their own experiences and the methods and practices that they have used with success.

Where farmers' institutes constitute an activity of the extension division of the college of agriculture, the subjects to be discussed at the meetings, the location, and the approximate dates are usually determined by the county agent in consultation with the farm-bureau members and other representative farmers. The county agent is thus primarily the organizer of the farmers' institutes, but only in very rare or exceptional cases is he on the program. The follow-up work is left with the county agent. The farmers' institute and the county-agent program are in complete accord and mutually helpful. Where the farmers' institute is a State activity, the most cordial and complete cooperation exists between the officially directing body and the college of agriculture. The subjects dealt with in the farmers' institutes include besides production an increased interest in the organization of grading, accounting, cooperative purchasing or marketing associations.

Data compiled from reports from 30 States show that 4,542 farmers' institutes lasting, in the aggregate, 5,681 days and comprising 10,088 sessions, with an attendance of 1,268,094 persons, were held in the United States in 1919. There were employed in this work 1,045 lecturers, at a cost of \$203,890, divided between State appropriations of \$173,714 and funds from other sources amounting to \$30,176. More detailed data respecting the farmers' institute work in each State will be found in the table on page 37.

EXTENSION WORK IN FOREIGN COUNTRIES.

A review of the available reports of extension work in agriculture and home economics in foreign countries was made during the year. This review records data regarding farmers' institutes, traveling cheese schools, women's agricultural associations, women's agricultural committees, and women's institutes in Great Britain; itinerant chairs of agriculture, extension specialists, courses in agricultural mechanics, courses in poultry raising, courses in tractors, itinerant instruction in silkworm raising and mulberry culture, women's agricultural institutes, courses in domestic education and economy, and the national federation of itinerant chairs of agriculture in Italy; courses for farm women in Germany; farm women's league and rural housekeeping instruction in Belgium; demonstration farms and itinerant agriculturists in India; itinerant agricultural instruction in Spain; itinerant instruction in Africa; railroad instruction trains and women's institutes in Canada; demonstration farms in Colombia; and minor and miscellaneous extension methods in a few other countries.

STATISTICS.

Farmers' institutes conducted by the extension department of the agricultural colleges, year ended June 30, 1919.

State.	Number of institutes.	Total number of days of institutes.	Total number of sessions.	Total attendance.	Number of lecturers.			Amount of State appropriation used for institutes.	Other funds used.
					From extension staff.	From outside sources.	Total number of lecturers.		
California.....	45	51	56	3,100	3	3	6	\$1,000.00	.....
Connecticut.....	27	27	45	2,314	20	9	29	309.86	.....
Delaware.....	12	12	18	625	9	3	12	200.00	.....
Florida.....	318	94	355	25,127	.....	.....	.....	5,000.00	.....
Georgia.....	6	24	48	6,500	10	.....	10	2,500.00	.....
Indiana.....	448	544	1,183	164,764	5	35	40	9,780.07	\$12,502.95
Kansas.....	251	236	296	5,879	20	.....	20	.....	7,481.88
Louisiana.....	65	30	65	4,753	.....	.....	.....	.....	.....
Maryland.....	173	174	297	18,284	20	.....	20	1,000.00	.....
Minnesota.....	79	105	184	23,180	4	12	16	3,588.52	.....
Nebraska.....	5	7	17	631	15	.....	15	.....	.....
New York.....	358	372	745	41,642	15	37	52	16,500.00	.....
Ohio.....	327	650	1,611	282,556	9	40	49	21,447.15	1,902.15
South Dakota.....	113	123	178	11,772	12	3	15	4,156.89	.....
Tennessee.....	3	16	38	5,700	32	66	98	1,113.15	.....
Utah.....	.....	25	59	2,044	2	4	6	350.00	220.00
Virginia.....	1	3	9	800	10	9	19	.....	1,000.00
West Virginia.....	190	190	364	24,666	25	3	28	4,044.60	.....
Wisconsin.....	173	346	720	65,317	62	2	64	15,177.25	.....
Wyoming.....	31	30	68	2,109	4	2	6	.....	.....
Total, 1919..	2,625	3,059	6,356	691,763	267	228	505	86,167.49	23,106.98
1918..	4,571	4,326	9,640	1,053,082	401	796	1,178	95,032.28	34,384.49
1917..	3,958	5,471	11,348	1,389,553	477	489	966	132,290.55	84,186.46
1916..	4,707	5,935	12,461	1,504,876	343	609	952	153,572.22	37,601.55
1915..	4,552	4,799	9,074	1,039,501	277	2,422	2,608	129,811.78	21,062.45

No institutes held in Arizona, Arkansas, Idaho, Kentucky, Michigan, Mississippi, Nevada, New Mexico, Oklahoma, Oregon, South Carolina, and Washington. No reports received from Colorado and Montana.

Farmers' institutes conducted by the States, year ended June 30, 1919.

State.	Number of institutes.	Total number of days of institutes.	Total number of sessions.	Total attendance.	Number of lecturers.			Amount of State appropriations used for institutes.	Other funds used.
					From official State institute staff.	From agricultural college or experiment station staff.	Total number of lecturers.		
Delaware.....	36	39	85	5,031	4	9	13	\$1,029.32	.....
Illinois.....	52	180	293	40,000	8	40	121	3,093.61	\$7,069.91
Massachusetts.....	40	43	58	7,735	29	9	64	1,575.56	.....
Missouri.....	393	393	440	111,418	14	.....	14	6,834.23	.....
New Hampshire.....	26	28	56	3,568	20	23	43	2,000.00	.....
New Jersey.....	92	92	230	16,116	85	29	114	3,675.11	.....
North Carolina.....	218	220	403	25,835	15	30	45	5,000.00	.....
North Dakota.....	49	61	118	12,666	13	9	27	11,813.55	.....
Pennsylvania.....	167	320	781	110,827	35	10	45	20,000.00	.....
Rhode Island.....	40	35	38	3,345	27	11	38	415.55	.....
Texas.....	804	1,211	1,230	239,790	16	.....	16	32,109.67	.....
Total, 1919..	1,917	2,622	3,732	576,331	266	170	540	87,546.60	7,069.91
1918..	2,370	2,858	4,806	863,624	284	146	815	89,430.96	41,978.36
1917..	3,034	3,965	7,504	997,377	253	177	454	120,006.11	43,588.81
1916..	4,485	4,851	9,225	1,111,577	419	225	644	127,459.87	51,786.72
1915..	4,508	5,791	12,167	1,785,215	259	196	516	208,175.56	44,023.61

No institutes held in Maine. No reports received from Alabama, Iowa, Vermont, and Virginia

Expenditures for cooperative agricultural extension work for the year ended June 30, 1919, by items of expense.

EXPENDITURES FROM THE UNITED STATES APPROPRIATION OF MAY 8, 1914 (FEDERAL SMITH-LEVER).

State.	Amount of appropriation.	Salary.	Labor.	Publications.	Stationery and small printing.	Postage, telegraph, telephone, freight, and express.	Heat, light, water, and power.	Supplies.	Library.	Tools, machinery, appliances.	Furniture and fixtures.	Scientific apparatus and specimens.	Live stock.	Traveling expenses.	Contingent expenses.	Unexpended balance.
Alabama.....	\$85,221.37	\$48,141.84	\$2,730.55	\$4,308.97	\$3,384.10	\$2,112.17	\$301.74	\$1,274.99	\$327.80	\$939.02	\$3,165.86	\$1,265.32		\$17,247.46	\$21.55	.....
Arizona.....	16,004.15	9,739.44	544.81	101.50	889.86	233.22	55.20	158.93	5.00	52.00	480.89	119.06		3,334.39	229.85	.....
Arkansas.....	68,374.42	32,761.32	991.96	6,337.44	5,892.39	2,360.31	237.59	538.57	74.07	117.85	4,451.44	351.67		12,337.83	1,921.98	.....
California.....	48,631.09	22,988.89	1,456.37		1,856.69	441.63		177.66			1,525.05	32.06		14,069.03		\$6,083.71
Colorado.....	26,774.17	19,027.82	451.53	1,647.16	767.42	480.74		175.22	7.96	4.50	248.86	206.35		3,756.61		.....
Connecticut.....	14,890.19	11,121.56	36.62			60.86		212.95						3,458.20		.....
Delaware.....	14,478.26	8,698.47	202.08	639.14	713.19	627.76		184.48		21.60	579.86	68.79		2,727.14	15.75	.....
Florida.....	32,704.31	19,622.85	913.79	2,695.61	1,474.37	225.40		202.38	7.50	339.34	2,041.22	20.23		5,161.62		.....
Georgia.....	98,107.14	76,329.87	44.12		308.36	290.32		1,108.69		219.24	465.77	13.50		19,327.27		.....
Idaho.....	20,880.94	13,861.38	271.70	829.80	422.10	439.24	11.75	249.77	58.87	30.80	797.06	15.20		3,871.17	22.10	.....
Illinois.....	101,987.69	79,022.63	972.03	5,465.85	4,818.32	1,647.65		204.81	56.79		1,658.63			8,081.21	59.77	.....
Indiana.....	76,258.57	57,216.79		2,342.54	1,827.44	306.75		166.07	4.50	20.50	1,522.34	28.80		12,822.84		.....
Iowa.....	75,734.12	56,598.06	68.56		575.54	247.50		69.59		65.91				18,106.96	2.00	.....
Kansas.....	60,944.10	35,395.82	18.75	1,237.99	4,477.29	554.48		785.39	100.70	200.43	2,692.12	329.01		12,068.34	22.01	3,053.67
Kentucky.....	83,808.61	38,466.38	527.82	2,530.15	1,718.10	1,098.88	850.00	725.26	5.14	96.10	1,390.84	396.90		18,849.19		17,153.85
Louisiana.....	59,357.39	41,241.41	414.25	1,552.16	740.29	523.07	200.00	1,755.86	31.08	290.72	3,916.04	186.25		8,498.26	8.00	.....
Maine.....	25,358.98	19,973.64	125.13	697.10	1,158.85	44.41	1.00	181.27	18.21	30.42	348.44	95.66		2,678.01	6.84	.....
Maryland.....	37,113.56	15,071.46	113.91	2,206.36	1,656.50	203.56		427.76	27.87	99.38	3,137.00	321.32		13,798.44	50.00	.....
Massachusetts.....	20,257.62	12,790.21	4.00	688.16	118.16	171.89	2.40	40.08		16.05	3.00			6,380.17	43.50	.....
Michigan.....	73,113.31	64,386.40	5,648.86	1,049.69	59.79	128.48		57.67	8.12	.88	12.00			1,761.42		.....
Minnesota.....	62,146.45	45,387.37	1,623.89	2,611.33	1,233.48	811.12		109.25	1.25	29.80	376.53			9,950.34	12.09	.....
Mississippi.....	77,652.72	44,560.07	1,100.57	2,118.79	6,244.16	1,314.93	307.60	601.08	139.87	687.25	1,347.45	259.61		18,648.44	322.90	.....
Missouri.....	90,619.62	39,918.51	4,242.09	3,588.48	7,456.01	1,585.13	.80	1,304.12	10.87	41.35	444.79	32.62		17,428.05	25.75	14,540.45
Montana.....	20,325.03	12,365.64	535.51	1,501.42	511.80	341.18		149.94	4.59		1,005.66	195.00		3,714.29		.....
Nebraska.....	47,505.62	25,668.06		2,219.99	6,094.58	1,343.44		730.79	123.63	130.32	2,136.29	15.42		9,007.74	35.36	.....
Nevada.....	12,915.30	9,416.68	151.91	342.90	523.53	311.25	67.50	247.46	28.65	28.85	121.25			1,521.82	153.50	.....
New Hampshire.....	17,467.10	11,093.59	660.18	372.41	409.18	510.10		251.66	7.25	45.26	810.01			3,307.46		.....
New Jersey.....	36,807.29	18,867.32	244.78	1,771.83	1,675.65	1,053.37	.60	680.16	71.65	213.47	1,037.59	127.15		10,597.58	466.14	.....
New Mexico.....	21,946.22	10,436.34	340.94	1,258.71	2,152.07	1,179.04		261.52	94.10	39.37	846.40	35.63		5,283.60	18.50	.....
New York.....	92,049.52	59,314.04	2,157.76	5,662.04	2,810.56	2,443.26		1,122.15	77.17	694.55	2,997.49	213.60		14,315.69	.36	240.85
North Carolina.....	90,334.28	54,470.34	976.18	3,989.30	2,859.65	3,068.71	81.94	989.71	191.92	151.15	2,095.09	538.79		20,134.14	191.17	.....
North Dakota.....	31,865.16	24,083.00	153.00	1,749.82	1,625.43	508.71		524.38	12.60	77.00	1,511.21	181.01		1,439.00		.....
Ohio.....	99,447.90	43,133.19	3,688.13	5,779.38	5,125.47	4,179.64	19.18	4,122.52	89.60	388.95	2,586.57	137.66		29,507.17	591.01	99.43
Oklahoma.....	66,894.92	53,750.01	412.95	1,580.88	2,290.74	179.56		206.28			1,054.76	26.52		7,393.19	

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Pennsylvania...	129,128.12	50,917.90	1,778.49	36.22	3,809.95	6,225.88	158.32	1,529.45	.25	26.84	684.71			60,731.07	3,229.04		
Rhode Island...	54,764.10	5.00	375.11		15.76	262.61		25.73	4.10	.90				74.89			
South Carolina...	54,919.03	38,472.44		2,745.95	864.67	975.51	11.32	88.71	19.25	21.82	1,137.45	180.55	\$45.00	9,257.36	1,099.00		
South Dakota...	21,584.10	13,173.12	1,684.24	581.42	1,156.71	372.96		34.98	2.00		1,740.85			2,834.07	3.75		
Tennessee...	74,203.54	61,531.62	18.00	3,678.93	.75	72.94		2,185.63		46.02	8.65			6,661.00			
Texas...	125,893.83	107,322.50		4,128.11										14,443.22			
Utah...	8,528.57	8,072.09	456.48														
Vermont...	7,958.17	6,525.50	21.06		541.50	5.67		54.10		8.75	780.18			21.41			
Virginia...	67,451.87	36,151.38	80.00	5,432.22	5,063.05	1,895.58	315.77	826.78	133.74	57.47	2,473.21	108.40		14,892.72	16.55		
Washington...	22,828.60	8,231.34	1,481.82	761.97	4,274.80	489.75		420.98		20.84	626.32			6,520.78			
West Virginia...	42,251.01	23,991.01	26.63	1,005.95	1,269.41	5.24		441.09			2,328.19			13,183.52			
Wisconsin...	56,577.45	31,299.37	3,107.50	993.13	1,753.76	608.54	7.94	1,008.12	2.50	169.26	107.50			18,496.08	23.75		
Wyoming...	4,372.20	4,018.00			228.15	31.48			14.00		9.00			71.57			
Total, 1919...	2,100,000.00	1,454,111.77	30,673.30	55,540.79	61,489.27	28,237.75	2,824.06	16,501.16	787.60	2,143.41	27,249.65	2,932.16	45.00	369,769.41	6,522.71	41,171.96	
1918...	1,600,000.00	1,147,256.62	42,263.69	40,130.89	36,527.87	20,826.08	3,052.65	9,909.71	684.29	3,975.07	18,699.79	1,254.59		259,998.19	3,486.85	11,933.71	
1917...	1,100,000.00	807,924.77	17,080.20	34,822.25	22,986.39	12,441.66	232.44	9,521.16	341.08	2,582.86	12,018.55	2,073.10		171,145.06	1,884.86	4,945.62	
1916...	600,000.00	444,838.61	10,632.39	15,198.34	13,787.31	5,397.94	223.28	7,718.43	208.40	2,210.66	8,339.73	999.38		87,068.02	1,331.24	2,076.27	

South Dakota.....	31,584.10	8,002.86	1,568.40	4,846.92	327.03	3,215.59	.....	.....	2,742.14	.....	.....	88.66	2,991.88
Tennessee.....	84,203.54	29,161.63	4,208.18	15,603.12	4,359.41	.....	.....	.....	3,478.29	.....	.....	2,772.10	.....
Texas.....	135,893.83	36,819.00	8,356.66	26,403.00	.....	10,540.92	3,504.86	.....	2,727.88	3,245.88	.....	2,202.54	575.00
Utah.....	18,528.57	3,643.44	8,982.64	11,170.75	.....	2,177.47	65.17	.....	.....	1,441.77	.....	.....	.....
Vermont.....	17,958.17	5,246.89	207.87	3,744.96	.....	1,876.70	2,941.51	.....	.....	.....	139.97	1,744.44	.....
Virginia.....	77,451.87	23,268.40	1,795.17	.....	.....	24,704.85	3,217.34	.....	6,469.37	3,439.69	.....	.....	.....
Washington.....	32,828.60	9,127.14	1,522.96	5,920.18	.....	4,237.67	4,517.03	.....	.....	.....	.....	2,835.07	.....
West Virginia.....	52,251.04	9,837.75	427.50	19,397.36	.....	7,588.71	4,131.31	.....	3,270.00	400.53	.....	1,001.98	.....
Wisconsin.....	66,577.45	9,740.03	3,021.84	18,360.53	476.61	5,624.19	3,174.57	.....	4,760.20	.....	.....	2,277.21	.....
Wyoming.....	14,372.20	5,827.52	816.45	331.55	3,470.22	175.26	1,480.60	.....	3,048.98	.....	.....	1,293.00	.....
Total, 1919.....	2,580,000.00	497,041.99	105,120.93	655,145.98	46,439.03	395,631.98	143,219.87	16,171.32	91,560.09	43,417.88	.....	85,229.65	14,524.65
1918.....	2,080,000.00	390,545.48	76,910.28	584,815.72	44,515.12	356,475.39	112,076.34	6,948.00	64,118.72	33,571.09	.....	67,341.75	14,790.71
1917.....	1,580,000.00	249,738.80	43,881.48	453,417.17	69,425.12	261,229.14	105,290.22	3,622.87	55,395.62	21,577.05	.....	49,536.76	11,807.83
1916.....	1,180,000.00	177,213.30	27,867.77	289,708.77	63,125.80	174,753.22	63,189.11	3,201.37	27,104.06	18,014.85	.....	38,365.08	9,593.93
1915.....	480,000.00	86,278.39	8,241.16	128,083.33	33,821.65	69,890.05	32,944.29	326.82	8,314.02	5,373.76	.....	16,269.72	3,930.67

Expenditures for cooperative agricultural extension work for the year ended June 30, 1919, by projects—Continued.
EXPENDITURES FROM THE UNITED STATES APPROPRIATION OF MAY 8, 1914 (FEDERAL SMITH-LEVER)—Continued.

State.	Agronomy.	Horti- culture.	Botany and plant pathology.	Entomol- ogy, api- culture, orni- thology.	Forestry.	Agri- cultural engineer- ing.	Farm manage- ment.	Rural organi- zation.	Marketing.	Exhibits and fairs.	Miscella- neous specialists.	Rodent pests.	Unex- pended balance.
Alabama.....	\$4,697.93	\$3,729.28	\$1,173.01	\$2,448.61		\$738.25	\$510.80		\$4,135.51		\$1,633.12	\$388.18	
Arizona.....													
Arkansas.....	87.90	2,715.18		33.33			504.00		2,525.41		4,322.17		\$6,083.71
California.....													
Colorado.....	1,509.95						965.00		1,768.91				
Connecticut.....	1,350.00												
Delaware.....													
Florida.....			411.48										
Georgia.....													
Idaho.....	917.42	773.08											
Illinois.....	2,935.39	2,637.30					3,892.74						
Indiana.....	5,452.22	7,302.37	2,928.37	734.48		2,537.90	3,108.28						
Iowa.....	11,300.00	4,484.00		450.00		5,900.00	3,550.00		3,070.00				
Kansas.....	4,053.91	2,002.29		2,583.42		4,904.89	70.80	\$2,570.70					3,053.67
Kentucky.....	650.65	2,404.53					492.00		1,424.96				17,153.85
Louisiana.....	3,191.44			12.11					6,950.20		553.32		
Maine.....							1,626.61	90.00					
Maryland.....		100.00	\$76.15	539.24	\$161.52	2,250.00							
Massachusetts.....		2,190.13	364.52				1,694.11						
Michigan.....	3,599.69	4,562.54	1,830.23	3,057.97	1,172.36	1,869.56	835.60		1,551.71				
Minnesota.....	1,307.70	1,398.95	1,803.18				4,826.69	2,559.47	1,197.92				
Mississippi.....		5,021.23	724.26	1,896.45		7,183.25	3,365.71		7,672.90				
Missouri.....	893.07	2,653.16		1,836.81		1,503.52	4,234.08	8.77					14,540.45
Montana.....							913.90		931.82				
Nebraska.....	3,515.14	3,535.69		345.93		4,303.22	1,751.78		851.68				
Nevada.....													
New Hampshire.....							1,142.02						
New Jersey.....	744.00	2,945.89							2,795.40				
New Mexico.....	825.00												
New York.....	5,435.29	4,713.53	4,639.19	1,835.67	320.00	1,356.43	3,359.67	1,458.27					240.85
North Carolina.....	12,333.72	3,598.39	1,090.66	1,071.24	358.32	690.02	115.00	800.00	6,402.18	\$1,943.32			
North Dakota.....													
Ohio.....	5,391.53	3,583.37	659.92	2,750.92			307.08						99.43
Oklahoma.....							2,946.60						
Oregon.....	1,922.77	1,081.89	1,044.74	87.50		6,288.34	825.58						
Pennsylvania.....	7,296.89	4,280.97	1,158.24			4,093.07	258.24		366.27				
Rhode Island.....			5,943.71										
South Carolina.....	3,628.38	3,962.01	1,111.40	1,623.69				777.62	1,750.00				

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South Dakota.....	21,584.10	10,843.54	581.42	2,191.40	3,695.55	1,834.59	37.50	930.00
Tennessee.....	74,203.54	6,409.67	3,678.93	29,734.16	1,726.22
Texas.....	125,893.83	2,542.59	4,128.11	57,170.00	.....	.....	.....	.....	.....	.....	1,581.02	.....
Utah.....	8,528.57	2,143.39	.....	3,986.81	.....	.....	.....	.....	.....	.....	.....	.....
Vermont.....	7,953.17	2,193.97	.....	3,680.03	.....	.....	.....	.....	.....	.....	.....	.....
Virginia.....	67,451.87	10,869.92	5,432.22	25,460.88	.....	.....	.....	.....	.....	.....	494.60	.....
Washington.....	22,828.60	6,760.02	761.97	3,749.14	.....	.....	.....	.....	.....	.....	7,316.48	.....
West Virginia.....	42,251.04	8,303.46	1,005.95	14,713.86	.....	.....	.....	.....	.....	.....	2,181.37	.....
Wisconsin.....	56,577.45	3,959.17	993.13	29,284.61	.....	.....	.....	.....	.....	.....	1,303.62	.....
Wyoming.....	4,372.20	4,300.63	.....	.....	.....	.....	.....	.....	.....	.....	3,946.70	.....
Total, 1919.....	2,100,000.00	252,329.45	55,540.79	941,902.93	28,667.68	112,706.28	4,086.38	4,613.63	51,661.37	30,166.18	48,483.73	11,498.94
1918.....	1,600,000.00	178,212.44	40,130.89	766,416.54	35,850.11	80,315.51	1,954.63	2,513.74	42,320.26	20,460.01	45,155.37	8,054.15
1917.....	1,100,000.00	97,302.53	34,819.50	541,495.05	36,501.94	50,209.68	1,179.03	3,935.14	26,020.19	8,787.64	24,306.88	5,230.27
1916.....	600,000.00	90,055.50	15,198.34	283,077.42	25,754.65	28,473.54	.....	396.52	7,305.47	6,706.09	9,905.43	2,406.88

Expenditures for cooperative agricultural extension work for the year ended June 30, 1919, by projects—Continued.
EXPENDITURES FROM THE UNITED STATES APPROPRIATION OF MAY 8, 1914 (STATE SMITH-LEVER)—Continued.

State.	Agronomy.	Horticulture.	Bctany and plant pathology.	Entomology, apiculture, ornithology.	Forestry.	Agricultural engineering.	Farm management.	Rural organization.	Marketing.	Exhibits and fairs.	Miscellaneous specialists.	Rodent pests.	Unexpended balance.
Alabama.....	\$318.98	\$276.10	.....	\$771.07	.....	\$300.00	.....	.....	\$1,739.67	.....	.....	.....	.....
Arkansas.....	300.00	1,230.07	.....	77.78	.....	.....	\$226.45	.....	1,682.01	.....	.....	.....	.....
California.....	.....	.....	.....	.....	.....	.....	924.99	.....	.....	.....	\$4,100.14	.....	\$6,083.71
Colorado.....	1,129.65	.....	.....	.....	.....	.....	380.18	.....	1,871.68	.....	.....	.....	.....
Connecticut.....	.....	479.52	\$143.82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delaware.....	8,088.96	3,825.92	1,182.01	830.33	\$1,894.27	2,863.24	.....	.....	3,241.41	\$2,687.81	.....	.....	.....
Georgia.....	200.00	187.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Idaho.....	.....	4,898.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iowa.....	684.59	249.00	.....	264.99	.....	.....	1,875.70	.....	.....	.....	.....	.....	.....
Kansas.....	1,430.00	3,926.65	.....	.....	.....	.....	875.00	.....	3,882.99	.....	.....	.....	3,053.67
Kentucky.....	30.00	.....	282.58	1,034.73	.....	.....	.....	.....	.....	.....	.....	.....	17,153.85
Louisiana.....	2,849.60	3,028.03	.....	.....	.....	1,080.25	.....	\$959.43	.....	.....	.....	.....	.....
Maryland.....	.....	378.06	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts.....	2,446.26	1,736.23	2,006.68	1,356.77	337.82	791.05	3,176.48	.....	2,359.40	.....	.....	.....	.....
Michigan.....	1,036.68	16.38	.....	1,005.96	.....	143.09	1,809.59	.....	.....	.....	.....	.....	14,540.45
Missouri.....	1,662.49	1,781.79	.....	252.00	.....	1,079.90	1,873.72	.....	655.74	.....	.....	.....	.....
Nebraska.....	63.50	1,875.00	.....	.....	.....	.....	.....	.....	2,000.00	.....	.....	.....	.....
New Jersey.....	.....	.....	.....	.....	.....	.....	.....	.....	2,462.83	.....	.....	.....	.....
New Mexico.....	5,500.00	1,999.98	.....	3,500.00	.....	1,410.00	2,866.62	.....	.....	.....	.....	.....	240.85
New York.....	400.00	.....	.....	91.63	1,527.41	2,028.97	755.90	.....	9,594.27	1,997.53	.....	\$1,163.59	.....
North Carolina.....	.....	333.33	348.70	.....	.....	.....	1,975.00	.....	.....	.....	.....	.....	.....
North Dakota.....	10,873.87	4,672.29	869.02	592.71	.....	803.71	2,060.04	.....	.....	.....	.....	.....	99.43
Ohio.....	.....	1,077.74	.....	.....	.....	.....	52.35	.....	.....	.....	.....	.....	.....
Oklahoma.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsylvania.....	97.24	.....	.....	316.23	.....	.....	.....	2,716.33	.....	419.02	.....	.....	.....
South Carolina.....	2,795.55	2,930.07	941.60	89.48	.....	.....	.....	221.11	292.65	.....	.....	.....	.....
South Dakota.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Texas.....	.....	13,441.26	.....	.....	.....	.....	1,470.10	8,805.86	1,840.00	.....	6,083.86	.....	.....
Utah.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vermont.....	.....	50.00	.....	.....	.....	.....	220.00	.....	.....	.....	.....	.....	.....
Virginia.....	.....	.....	269.68	.....	.....	4,736.55	190.30	.....	.....	.....	.....	.....	.....
Washington.....	1,690.87	1,283.66	.....	.....	.....	.....	595.52	.....	.....	.....	.....	.....	.....
West Virginia.....	538.20	1,281.17	98.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin.....	450.00	188.87	63.03	.....	.....	11,236.09	.....	375.00	.....	.....	.....	.....	.....
Total, 1919.....	42,555.94	37,705.66	19,646.78	10,750.04	3,759.50	26,472.85	21,327.94	13,077.73	31,572.65	5,104.36	10,134.00	1,163.59	41,171.96
1918.....	44,613.67	22,294.37	19,659.97	9,904.89	1,184.10	20,830.86	13,135.06	13,798.22	20,802.90	3,128.85	.....	367.54	11,933.71
1917.....	26,433.67	18,183.43	18,643.05	7,030.07	3,171.32	12,420.99	15,638.37	12,636.50	9,544.02	2,839.67	12,489.65	.....	4,945.63
1916.....	9,439.85	9,911.70	5,388.86	3,560.81	1,498.89	3,003.55	6,065.04	12,279.09	1,850.19	3,434.64	3,742.83	.....	2,076.27

Sources of offset to Federal Smith-Lever funds for the year ended June 30, 1919.

State.	Total.	State.	County.	College.	Other.	Balance.
Alabama.....	\$75,221.37	\$49,213.08	\$26,008.29			
Arizona.....	6,004.15	6,004.15				
Arkansas.....	58,374.42	43,642.17	14,732.25			
California.....	38,631.09	32,547.38				\$6,083.71
Colorado.....	16,774.17	16,774.17				
Connecticut.....	4,890.19	4,890.19				
Delaware.....	4,478.26	4,478.26				
Florida.....	22,704.31	22,704.31				
Georgia.....	88,107.14	88,107.14				
Idaho.....	10,880.94	10,880.94				
Illinois.....	91,987.69	27,999.51			\$63,988.18	
Indiana.....	66,258.57	66,258.57				
Iowa.....	65,734.12	65,734.12				
Kansas.....	50,944.10	47,890.43				3,053.67
Kentucky.....	73,808.61	36,656.24	19,998.52			17,153.85
Louisiana.....	49,357.39	25,245.20			24,112.19	
Maine.....	15,358.98	15,358.98				
Maryland.....	27,113.56	27,113.56				
Massachusetts.....	10,257.62	10,257.62				
Michigan.....	63,113.31		21,187.80	\$41,925.51		
Minnesota.....	52,146.45		52,146.45			
Mississippi.....	67,652.72	13,700.00	53,952.72			
Missouri.....	80,619.62	24,636.90	3,751.89		37,690.38	14,540.45
Montana.....	10,325.03	10,325.03				
Nebraska.....	37,505.62	37,505.62				
Nevada.....	2,915.30	2,915.30				
New Hampshire.....	7,467.10	7,467.10				
New Jersey.....	26,807.29	26,807.29				
New Mexico.....	11,946.22	11,946.00		.22		
New York.....	82,049.52	81,808.67				240.85
North Carolina.....	80,334.28	49,731.00			30,603.28	
North Dakota.....	21,865.16	21,865.16				
Ohio.....	89,447.90	89,348.47				99.43
Oklahoma.....	56,894.92	56,894.92				
Oregon.....	15,562.26	15,562.26				
Pennsylvania.....	129,128.12	73,148.08	55,980.04			
Rhode Island.....	764.10	764.10				
South Carolina.....	54,919.03	54,919.03				
South Dakota.....	21,584.10	21,584.10				
Tennessee.....	74,203.54	27,625.54	41,737.39	4,840.61		
Texas.....	125,893.83	111,631.59	14,262.24			
Utah.....	8,528.57	8,528.57				
Vermont.....	7,958.17	7,958.17				
Virginia.....	67,451.87	63,951.87	3,500.00			
Washington.....	22,828.60	22,828.60				
West Virginia.....	42,251.04	33,141.04	9,110.00			
Wisconsin.....	56,577.45	56,577.45				
Wyoming.....	4,372.20	4,372.20				
Total, 1919.....	2,100,000.00	1,539,300.08	316,367.59	46,766.34	156,394.03	41,171.96
1918.....	1,600,000.00	1,262,305.01	215,077.20	51,025.46	59,658.62	11,933.71
1917.....	1,100,000.00	893,058.99	94,556.74	59,055.32	48,383.33	4,945.62
1916.....	600,000.00	470,649.42	69,226.79	26,834.76	31,212.76	2,076.27

Total expenditures of funds from all sources for cooperative agricultural extension work for the year ended June 30, 1919.

BY SOURCES OF FUNDS.

State.	Total.	United States Department of Agriculture.				Smith-Lever.		State.	County.	College.	Other.
		States Relations Service.		Other bureaus and offices.	Federal.	State.					
		Regular. ¹	Emergency. ²								
Alabama.....	\$344,252.02	\$42,209.11	\$108,276.96	\$15,783.33	\$85,221.37	\$75,221.37		\$14,297.36			\$3,242.52
Arizona.....	93,098.79	6,241.78	32,407.25	22,282.00	16,004.15	6,004.15		7,593.83			1,535.96
Arkansas.....	417,507.10	39,041.21	99,915.29	28,481.26	68,374.42	58,374.42		120,971.24			1,723.66
California.....	324,462.70	11,904.92	97,608.89	51,078.89	42,547.38	32,547.38		87,400.00		\$1,375.24	
Colorado.....	146,511.04	7,626.48	54,231.81	26,331.95	26,774.17	16,774.17		4,653.85			
Connecticut.....	205,887.09	6,671.42	41,363.89	16,091.18	14,890.19	4,890.19		84,298.90			
Delaware.....	40,932.24	1,465.08	18,861.89	1,648.26	14,478.26	4,478.26					
Florida.....	239,327.29	22,843.41	68,450.93	12,302.11	32,704.31	22,704.31		67,106.85			4,120.71
Georgia.....	519,366.98	38,239.66	179,916.24	21,093.58	98,107.14	88,107.14		93,903.22			
Idaho.....	180,266.43	4,982.71	57,496.31	19,693.83	20,880.94	10,880.94				4,802.84	151,069.41
Illinois.....	520,202.41	96.02	149,367.84	20,890.92	101,987.69	91,987.69					12,483.22
Indiana.....	514,427.27	36,357.90	151,764.67	28,326.97	76,238.57	66,258.57		96,172.93			
Iowa.....	523,931.38	40,884.92	235,315.37	40,217.97	75,734.12	65,734.12		58,800.00			7,412.72
Kansas.....	338,102.37	20,902.06	115,904.89	18,449.40	57,890.43	47,890.43		33,925.85		35,726.59	
Kentucky.....	327,554.50	32,024.96	89,982.20	5,437.82	66,654.76	56,654.76		62,000.00			13,000.00
Louisiana.....	278,775.16	33,917.21	91,415.39	10,727.78	59,357.39	49,357.39		34,000.00			
Maine.....	87,016.87	7,282.97	30,907.19	6,526.57	25,358.98	15,358.98				1,582.18	
Maryland.....	215,968.38	19,194.57	69,278.25	9,571.41	37,113.56	27,113.56		8,093.00			
Massachusetts.....	320,742.95	9,919.72	86,473.12	10,600.12	20,257.62	10,257.62		136,347.03			
Michigan.....	405,462.14	13,925.95	146,088.60	24,702.39	73,113.31	63,113.31		76,909.48		7,609.10	
Minnesota.....	464,532.96	13,416.22	193,000.62	30,931.96	62,146.45	52,146.45		47,483.11		23,488.37	26,906.87
Mississippi.....	417,554.59	57,792.47	121,010.10	34,704.13	77,652.72	67,652.72		49,720.57			2,871.33
Missouri.....	361,052.23	20,323.64	166,678.68	20,577.32	76,079.17	66,079.17		11,314.25			
Montana.....	223,630.31	11,509.23	88,283.74	21,439.38	20,325.03	10,325.03		28,739.64			
Nebraska.....	365,874.59	29,058.21	128,049.81	28,043.76	47,505.62	37,505.62		8,191.57		18,720.00	47,600.00
Nevada.....	71,082.05	3,986.46	25,281.74	9,829.01	12,915.30	2,915.30		468.74		3,268.69	12,416.81
New Hampshire.....	130,471.96	7,098.69	38,464.29	6,556.34	17,467.10	7,467.10		35,385.17			17,733.27
New Jersey.....	177,922.79	7,680.70	54,062.11	7,441.16	36,807.29	26,807.29		35,805.17			167.25
New Mexico.....	189,219.52	14,740.68	50,299.53	33,898.63	21,946.22	11,946.22		32,418.01		985.24	235.92
New York.....	731,936.81	27,865.77	127,427.55	19,108.72	91,808.67	81,808.67		255,061.19		42,001.33	1,148.85
North Carolina.....	541,892.80	32,713.61	146,730.51	40,877.12	90,334.28	80,334.28		108,900.00			
North Dakota.....	205,154.67	5,853.76	69,909.72	17,272.75	31,865.16	21,865.16		40,165.29			
Ohio.....	476,380.36	19,824.59	164,519.02	12,467.04	99,348.47	89,348.47		50,947.91			
Oklahoma.....	374,779.31	36,576.21	113,499.35	15,600.12	66,894.92	56,894.92		83,270.22		2,043.57	
Oregon.....	231,920.28	15,423.11	54,548.73	25,310.34	25,562.26	15,562.26		39,539.11			595.40

Pennsylvania.....	360,634.31	4,293.33	72,214.92	5,406.45	139,128.12	129,128.12	.....	480.51	9,982.86	.....
Rhode Island.....	50,775.90	2,128.26	22,379.29	4,527.35	10,764.10	764.10	.....	6,800.00	262.80	3,150.00
South Carolina.....	328,797.29	32,866.98	90,322.65	31,675.65	64,919.03	54,919.03	.....	46,593.95	7,500.00	.....
South Dakota.....	232,154.09	18,247.75	80,579.61	16,132.53	31,884.10	21,584.10	.....	68,558.75	.....	.....
Tennessee.....	382,424.55	58,601.78	120,153.85	17,330.24	84,203.54	74,203.54	.....	20,775.75	2,115.75	5,040.10
Texas.....	722,785.41	53,338.21	249,667.71	40,017.91	135,893.83	125,893.83	.....	104,653.80	.....	13,320.12
Utah.....	158,264.98	12,866.70	67,421.88	17,628.33	18,528.57	8,528.57	.....	15,765.60	.....	513.01
Vermont.....	109,655.51	12,130.57	24,980.99	11,422.95	17,958.17	7,958.17	.....	14,247.70	.....	20,808.85
Virginia.....	385,596.20	30,917.32	125,402.30	12,016.83	77,451.87	67,451.87	.....	52,710.55	.....	9,630.60
Washington.....	267,417.20	8,101.17	84,110.28	25,109.13	32,828.60	22,828.60	.....	72,539.02	13,687.90	8,212.50
West Virginia.....	233,894.25	21,134.38	69,648.74	7,988.22	52,251.04	42,251.04	.....	13,445.09	.....	5,714.21
Wisconsin.....	284,089.27	6,236.78	87,862.60	28,859.76	66,577.45	56,577.45	.....	26,939.32	11,035.91	.....
Wyoming.....	117,871.20	6,637.93	36,705.83	2,962.28	14,372.20	4,372.20	.....	21,276.12	.....	.....
Total, 1919.....	14,661,560.50	966,596.57	4,598,243.13	935,373.64	2,538,828.04	2,058,828.04	715,640.12	2,291,209.30	186,188.37	370,653.29
1918.....	11,302,764.75	951,333.82	2,949,072.48	507,282.95	2,068,066.29	1,588,066.29	682,781.45	1,863,632.29	198,309.80	494,219.38
1917.....	6,149,619.63	958,333.87	.....	185,893.15	1,575,054.38	1,095,054.38	635,275.15	1,258,296.14	196,839.01	244,873.55
1916.....	4,864,180.94	900,389.92	.....	165,172.01	1,077,923.73	597,923.73	651,799.58	973,251.56	220,934.32	276,786.09
1915.....	3,597,235.85	905,782.00	.....	105,168.40	474,934.73	.....	724,445.13	780,331.79	319,825.25	286,748.55

¹ Funds for farmers' cooperative demonstration work.

² Funds for stimulating agriculture and facilitating distribution of agricultural products.

Total expenditures of funds from all sources for cooperative agricultural extension work for the year ended June 30, 1919—Continued.

BY ITEMS OF EXPENSE.

State.	Amount of appropriation.	Salary.	Labor.	Publications.	Stationery and small printing.	Postage, telegraph, telephone, freight, and express.	Heat, light, water, and power.	Supplies.	Library.	Tools, machinery, and appliances.	Furniture and fixtures.	Scientific apparatus and specimens.	Live stock.	Traveling expenses.	Contingent expenses.
Alabama.....	\$344,252.02	\$261,183.69	\$3,438.94	\$4,830.35	\$3,707.49	\$2,410.94	\$307.74	\$1,436.18	\$340.20	\$1,326.58	\$3,441.33	\$1,420.32	.....	\$60,373.71	\$34.55
Arizona.....	93,098.79	52,023.17	1,004.39	1,833.68	2,178.30	1,011.45	75.97	1,047.72	39.63	82.03	1,447.70	140.81	.....	31,624.60	569.34
Arkansas.....	417,507.10	326,347.75	1,637.68	6,963.04	6,324.06	2,480.32	283.64	560.75	137.09	120.85	4,715.50	351.67	.....	65,660.10	1,924.65
California.....	324,462.70	221,498.65	2,090.12	.....	2,291.87	543.34	.....	613.52	.....	.....	1,872.05	32.06	.....	95,521.09	.....
Colorado.....	146,511.04	101,619.55	1,471.67	4,069.92	1,246.94	1,773.57	15.72	865.33	9.96	10.76	1,780.93	227.91	.....	28,760.93	4,637.85
Connecticut.....	205,887.09	136,687.30	686.61	1,415.45	5,972.04	3,967.52	4,826.82	7,224.09	179.58	24.14	2,695.26	39.16	.....	34,363.11	7,806.01
Delaware.....	40,832.24	28,607.17	405.42	892.79	1,167.68	957.01	10.81	492.49	44.50	45.18	914.35	168.13	.....	7,190.41	36.30
Florida.....	239,327.29	199,688.53	913.79	2,779.43	1,920.40	255.50	.....	257.78	35.51	404.84	2,739.07	378.23	.....	29,954.21	.....
Georgia.....	519,366.98	390,483.56	3,145.73	7,282.10	8,156.25	1,843.26	739.85	4,031.34	5.00	651.20	2,998.92	903.70	.....	98,126.07	.....
Idaho.....	180,266.43	116,723.15	1,070.38	2,184.49	2,975.13	2,130.38	16.25	5,248.06	201.19	250.45	3,508.71	957.51	.....	41,177.18	823.55
Illinois.....	520,202.41	366,672.55	972.03	5,465.85	4,841.89	1,876.31	.....	205.06	56.79	.....	1,658.63	.....	.....	71,023.34	67,429.96
Indiana.....	514,427.27	345,246.22	819.28	4,667.46	4,909.11	2,095.74	.....	73,295.86	4.50	55.75	1,971.79	46.54	\$12.00	81,303.02	.....
Iowa.....	523,931.38	446,026.26	6,669.99	6,633.88	9,192.41	5,399.66	757.32	1,522.24	37.00	314.58	721.14	37.88	.....	46,479.61	169.41
Kansas.....	338,102.37	247,864.04	198.92	1,759.37	7,552.84	4,714.55	.....	1,248.97	182.01	353.32	4,692.75	781.84	.....	68,723.06	30.40
Kentucky.....	327,554.50	271,917.27	618.17	2,530.15	1,718.50	1,712.27	850.00	1,976.40	5.14	103.25	1,394.99	396.90	.....	45,331.46	.....
Louisiana.....	278,775.16	222,735.67	443.25	1,710.71	1,845.49	656.65	200.00	1,941.01	31.08	305.72	4,018.54	186.25	.....	45,688.79	12.00
Maine.....	87,016.87	56,081.29	133.26	697.10	1,938.75	632.75	19.00	513.85	18.21	92.93	1,054.70	101.06	.....	25,589.78	104.19
Maryland.....	215,968.38	154,616.29	444.74	3,196.86	2,328.10	2,639.54	.....	961.00	90.60	141.04	3,691.59	891.40	.....	48,320.73	131.93
Massachusetts.....	320,742.95	208,347.31	1,282.84	2,525.97	3,047.03	2,639.54	39.35	30,029.62	212.35	404.87	1,227.45	.....	.....	50,225.71	20,760.91
Michigan.....	405,462.14	305,589.86	12,908.31	2,892.83	6,440.34	2,569.56	.....	1,477.67	67.07	116.71	2,092.57	115.44	.....	70,669.50	522.28
Minnesota.....	464,532.96	354,904.14	4,972.22	9,442.34	8,804.47	9,466.79	666.38	1,300.27	146.37	807.90	3,265.30	259.61	.....	77,125.73	2,816.68
Mississippi.....	417,554.59	315,945.98	1,738.43	4,322.58	8,732.83	2,313.52	823.45	2,368.24	57.14	47.36	577.50	32.62	.....	69,397.82	1,627.52
Missouri.....	361,052.23	261,228.53	5,437.46	3,668.13	5,031.85	2,526.60	455.59	6,220.64	127.93	316.05	2,599.05	766.23	.....	58,711.20	.....
Montana.....	223,630.31	137,873.72	4,313.32	3,668.13	12,880.63	2,483.21	4,000.00	8,646.80	183.15	262.18	6,934.17	15.77	.....	78,589.59	8,001.73
Nebraska.....	365,874.59	240,726.88	.....	3,150.48	12,880.63	2,483.21	223.30	1,614.58	74.65	612.35	640.20	2.24	91.50	19,152.51	821.75
Nevada.....	71,082.05	44,929.38	294.78	625.74	1,178.82	2,080.25	223.30	2,505.27	44.50	95.06	1,812.78	276.96	.....	28,767.17	1,445.11
New Hampshire.....	130,471.96	74,458.34	5,434.55	9,781.62	2,134.98	2,695.77	1,019.85	1,911.80	165.33	647.56	2,840.61	342.07	.....	37,750.10	2,027.68
New Jersey.....	177,922.79	118,614.42	594.73	5,301.01	4,191.45	4,206.86	44.64	1,771.37	451.90	87.83	2,680.61	541.74	.....	58,022.87	382.16
New Mexico.....	189,219.52	115,242.50	1,631.11	2,609.69	3,318.31	3,425.45	33.98	1,911.80	165.33	647.56	2,840.61	541.74	.....	77,902.17	34,046.39
New York.....	731,936.81	450,520.19	2,846.17	57,735.86	8,158.70	5,287.21	.....	41,673.63	77.17	694.55	16,781.17	213.60	.....	113,902.17	92,531.55
North Carolina.....	541,892.80	420,278.68	1,167.76	11,804.70	4,678.67	4,240.34	82.79	1,165.45	337.17	187.10	3,619.14	292.53	.....	92,531.55	506.92
North Dakota.....	205,154.67	128,885.50	1,070.92	2,231.67	2,696.95	4,678.67	2,250.00	1,232.64	15.80	91.10	2,973.10	212.78	.....	60,750.42	1,066.21
Ohio.....	476,380.36	314,159.40	16,252.61	10,800.41	11,693.87	7,528.47	26.14	7,680.80	174.30	424.92	3,202.41	137.66	.....	100,951.18	3,355.50
Oklahoma.....	374,779.31	291,530.35	1,698.86	4,392.78	4,812.51	5,284.47	.....	6,688.86	11.10	48.15	1,752.83	44.81	.....	67,225.02	2,045.57
Oregon.....	231,920.28	135,677.68	1,664.35	4,764.26	8,157.81	5,157.15	218.51	5,177.88	12.25	3,979.47	3,474.96	482.35	.....	63,023.66	129.95
Pennsylvania.....	360,634.31	228,379.87	4,494.22	8,813.51	12,075.62	9,192.30	160.07	2,381.26	9.28	118.86	2,171.84	199.01	98.20	89,304.62	3,235.65

Rhode Island.....	50, 775.90	36, 624.01	540.09	268.83	888.09	434.59	.....	3, 044.23	63.75	7.65	522.06	64.00	.....	8, 283.50	35.10
South Carolina....	328, 797.29	248, 908.25	362.47	5, 991.90	3, 610.42	1, 666.80	31.62	3, 640.84	372.89	269.84	5, 078.72	368.10	45.00	60, 244.44	1, 206.00
South Dakota.....	252, 154.09	160, 858.78	23, 804.51	2, 149.82	9, 026.94	5, 638.91	275.08	1, 205.59	13.45	29.30	4, 839.46	.....	.....	42, 319.64	1, 973.51
Tennessee.....	382, 424.55	293, 949.48	3, 058.00	7, 887.11	6, 447.18	2, 192.46	392.48	2, 475.42	371.46	153.52	4, 932.86	42.09	.....	60, 466.36	56.13
Texas.....	722, 735.41	562, 272.96	.....	12, 484.77	6, 778.71	2, 909.40	46.00	765.77	2, 726.79	66.50	11, 216.30	89.66	.....	123, 398.55	30.00
Utah.....	158, 264.98	114, 445.57	1, 651.66	1, 006.28	1, 127.43	819.31	53.50	1, 080.42	75.38	61.60	1, 342.18	.....	.....	37, 681.55	391.94
Vermont.....	109, 655.51	67, 888.64	3, 531.92	7, 227.39	4, 942.76	2, 318.86	.....	1, 807.23	39.12	359.25	1, 350.45	11.21	.....	20, 469.84	7, 405.17
Virginia.....	385, 596.20	284, 473.40	1, 019.91	5, 908.97	5, 392.10	2, 169.86	315.77	1, 807.23	232.44	221.12	3, 381.79	108.40	943.29	75, 532.75	2, 770.75
Washington.....	267, 417.20	161, 065.23	15, 393.48	3, 727.05	9, 423.66	4, 139.71	45.24	4, 749.82	4.03	1, 421.25	3, 204.78	340.77	.....	61, 720.26	.....
West Virginia.....	233, 894.25	179, 071.03	1, 554.44	5, 639.48	5, 639.48	2, 211.19	.....	2, 088.84	19.26	52.81	3, 506.99	28.17	.....	35, 262.99	732.00
Wisconsin.....	284, 089.27	213, 446.69	5, 778.03	4, 602.80	2, 075.82	1, 540.62	47.85	6, 504.43	11.35	917.92	284.73	285.13	.....	48, 474.90	119.00
Wyoming.....	117, 871.20	82, 377.52	355.62	3, 319.71	2, 347.82	1, 050.06	1.10	817.06	16.50	158.95	351.41	109.50	502.55	26, 314.28	149.12
Total, 1919....	14, 661, 560.50	10, 498, 696.40	151, 107.13	263, 371.74	247, 795.48	133, 351.26	19, 574.36	245, 342.87	7, 612.88	18, 050.45	144, 607.43	13, 443.82	1, 692.54	2, 735, 151.37	181, 762.77
1918....	11, 302, 764.75	8, 168, 965.83	166, 839.86	190, 267.35	204, 632.33	127, 128.31	18, 246.60	212, 631.90	3, 526.35	24, 902.30	166, 255.64	11, 897.59	9, 458.39	1, 830, 764.70	167, 247.60
1917....	6, 149, 619.63	4, 406, 021.73	84, 878.32	144, 777.26	113, 947.63	68, 330.02	6, 214.88	116, 804.55	2, 256.33	19, 178.19	53, 394.37	10, 567.50	1, 826.68	1, 023, 405.63	98, 016.34
1916....	4, 864, 180.94	3, 434, 032.25	80, 029.60	98, 850.56	79, 064.79	48, 709.30	4, 842.21	97, 728.37	2, 164.36	32, 974.37	48, 631.76	10, 719.60	632.89	849, 259.37	76, 481.51
1915....	3, 597, 235.85	2, 616, 969.86	69, 954.09	72, 090.72	49, 640.47	37, 437.90	9, 614.79	55, 886.15	707.48	17, 094.67	36, 155.66	6, 870.21	2, 255.99	603, 432.74	19, 125.12

Total expenditures of funds from all sources for cooperative agricultural extension work for the year ended June 30, 1919, by projects.

State.	Total.	Administra- tion.	Printing and distribution of publica- tions.	County agent.	Home economies.	Extension schools.	Boys' clubs.	Pig clubs.	Poultry clubs.	Animal husbandry	Poultry.	Dairying.	Animal diseases.
Alabama.....	\$344,252.02	\$16,248.36	\$4,830.35	\$180,629.48	\$85,162.84	\$1,523.14	\$7,158.33	\$2,561.40	\$2,091.24	\$7,892.85	.....	\$9,038.52	\$674.15
Arizona.....	93,098.79	8,306.87	1,833.68	23,061.70	18,610.46	467.85	12,800.55	.....	.....	2,226.62	.....	292.73	.....
Arkansas.....	417,507.10	28,780.19	6,963.04	207,497.34	124,249.37	2,589.94	2,166.23	1,062.79	1,059.72	17,687.23	\$2,743.53	7,330.05	.....
California.....	324,462.70	11,104.95	.....	209,993.62	31,012.23	.....	12,176.36	.....	9,764.42	.....	.....	263.37	2,597.62
Colorado.....	146,511.04	11,088.73	4,162.02	48,321.06	20,980.65	3,508.32	16,464.43	.....	935.39	6,580.98	.....	561.70	1,211.43
Connecticut.....	205,887.09	15,590.69	1,415.45	102,602.03	29,880.90	464.58	14,238.67	.....	.....	4,498.83	3,794.30	4,589.53	.....
Delaware.....	40,932.24	6,494.60	892.79	11,372.09	13,197.70	.....	6,368.67	.....	.....	.....	.....	784.30	.....
Florida.....	239,327.29	13,346.72	2,779.43	117,945.14	83,797.41	.....	6,555.05	.....	2,317.45	7,467.68	.....	257.87	4,135.16
Georgia.....	519,366.98	27,200.74	7,282.10	250,249.19	160,639.98	6,862.55	29,006.67	1,196.05	.....	15,842.55	501.52	9,399.65	4,672.63
Idaho.....	180,266.43	17,696.77	2,184.49	57,340.44	27,303.20	1,431.49	29,006.67	.....	.....	7,213.00	.....	4,409.61	.....
Illinois.....	520,202.41	13,661.27	5,465.85	374,728.13	70,423.92	.....	16,812.65	.....	8,056.50	10,807.42	.....	3,888.10	.....
Indiana.....	514,427.27	32,269.78	4,667.46	275,886.96	64,636.62	6,669.52	27,999.24	.....	4,189.26	12,769.52	5,867.90	11,450.83	3,300.00
Iowa.....	523,931.38	53,732.47	6,633.88	244,876.32	93,567.06	.....	27,092.97	.....	7,565.25	6,192.97	2,746.78	5,352.99	3,666.95
Kansas.....	338,102.37	14,431.45	1,739.37	155,269.30	53,684.36	11,234.91	23,748.12	124.10	.....	9,271.05	4,300.07	13,539.23	3,870.73
Kentucky.....	327,554.50	22,205.13	2,530.15	198,923.40	48,274.51	419.18	22,732.05	.....	.....	5,094.31	6,933.36	2,020.92	2,401.09
Louisiana.....	278,775.16	14,357.47	1,710.71	151,003.78	71,238.42	.....	11,162.83	.....	.....	7,094.47	4,505.41	1,780.57	.....
Maine.....	87,016.87	7,964.16	697.10	39,026.40	17,302.68	29.15	5,718.34	.....	.....	2,394.49	2,390.09	2,592.17	372.39
Maryland.....	215,968.38	26,405.34	3,196.86	83,487.53	54,309.73	.....	11,730.83	.....	1,000.68	1,090.67	3,012.08	3,296.39	5,470.92
Massachusetts.....	320,742.95	16,019.28	2,679.11	87,571.51	104,258.53	5,167.55	60,049.45	.....	.....	7,160.43	4,901.17	3,103.68	.....
Michigan.....	405,462.14	9,898.67	2,892.83	212,642.15	59,323.54	5,556.43	40,071.61	.....	491.66	5,684.66	5,940.32	4,179.85	.....
Minnesota.....	464,532.96	17,006.76	9,442.34	298,194.45	39,979.08	3,196.51	27,416.72	.....	3,240.26	7,215.27	4,396.38	7,641.81	.....
Mississippi.....	417,554.59	7,136.56	4,723.30	199,881.82	112,926.89	3,521.72	18,627.06	.....	.....	24,476.50	2,077.64	11,829.02	.....
Missouri.....	361,052.23	14,962.22	4,332.58	165,445.32	92,675.59	2,669.83	24,600.01	.....	.....	17,428.08	11,560.90	6,345.65	1,730.52
Montana.....	223,630.31	16,663.44	3,660.13	110,450.03	37,617.22	.....	17,485.35	.....	.....	1,898.73	.....	3,312.70	750.00
Nebraska.....	365,874.59	25,555.80	3,150.48	126,767.11	56,449.46	.....	70,526.64	.....	.....	8,917.77	.....	2,937.61	8,174.07
Nevada.....	71,082.05	5,834.13	625.74	16,479.54	12,124.72	.....	16,577.23	.....	.....	2,379.87	.....	4,386.34	.....
New Hampshire.....	130,471.96	6,025.25	9,731.62	51,139.65	27,327.33	.....	24,739.30	.....	.....	.....	170.15	2,937.61	.....
New Jersey.....	177,922.79	18,174.89	5,301.01	78,886.32	29,394.99	.....	19,808.43	.....	.....	.....	3,414.29	5,341.01	.....
New Mexico.....	189,219.52	11,599.66	2,609.69	91,175.29	16,422.94	642.57	26,047.81	.....	.....	.....	3,227.32	3,009.67	3,730.68
New York.....	31,936.81	31,280.85	57,735.86	346,918.75	131,554.01	41,514.08	12,794.54	.....	.....	43,338.25	8,518.60	5,268.26	3,860.88
North Carolina.....	541,892.80	22,674.41	11,804.70	217,387.21	138,772.53	3,031.37	11,813.78	.....	.....	2,928.13	6,549.04	2,806.93	3,805.75
North Dakota.....	205,154.67	27,260.37	2,231.67	99,300.78	19,464.77	1,752.67	22,380.73	.....	.....	10,067.70	1,708.07	8,162.90	4,591.24
Ohio.....	476,380.36	47,852.78	10,800.14	211,473.68	70,523.24	3,312.70	26,223.72	1,448.38	.....	4,514.72	5,697.11	5,949.05	2,264.69
Oklahoma.....	374,779.31	17,731.78	4,392.78	213,189.00	93,207.91	.....	13,795.16	.....	.....	5,571.65	.....	8,135.53	.....
Oregon.....	231,920.28	20,446.98	4,704.26	118,259.97	13,810.46	4,211.42	24,893.31	1,586.45	.....	4,514.72	1,708.07	11,532.92	.....
Pennsylvania.....	360,634.31	21,047.60	8,813.51	184,152.25	87,109.05	1,825.60	5,438.22	.....	.....	10,653.45	5,697.11	2,439.98	.....
Rhode Island.....	50,775.90	6,749.62	268.83	13,017.92	13,127.28	.....	11,663.72	.....	.....	23.15	.....	14,982.74	.....
South Carolina.....	328,797.29	26,294.90	5,991.90	106,923.26	121,828.84	.....	5,289.32	.....	.....	13,652.98	.....	238.66	5,713.38
South Dakota.....	252,154.09	18,846.40	2,149.82	159,886.87	13,168.69	4,022.58	20,465.94	.....	1,491.72	5,620.12	936.29	8,344.76	.....
Tennessee.....	382,424.55	35,699.01	7,887.11	160,808.53	132,168.00	6,475.16	.....	.....	.....	12,818.99	3,245.88	.....	.....

Texas.....	722,785.41	37,361.59	12,484.77	403,697.29	136,670.09	.....	233.36	.....	13,550.26	.....	.....	20,398.51	7,748.06	7,491.16	575.00
Utah.....	158,264.98	9,995.48	1,006.28	71,472.74	31,462.55	.....	.....	.....	16,862.53	.....	2,922.93	1,710.06	.....	4,611.59	1,111.65
Vermont.....	109,655.51	7,580.71	207.87	56,488.68	16,727.91	.....	.....	.....	11,333.36	.....	.....	2,433.83	209.97	6,087.26	.....
Virginia.....	385,596.20	40,830.12	7,227.39	163,835.97	105,959.72	.....	400.00	.....	17,601.88	.....	2,344.38	11,125.14	3,562.05	10,176.28	.....
Washington.....	267,417.20	17,838.56	5,908.97	128,266.77	29,625.75	.....	.....	.....	34,056.65	.....	.....	404.17	777.83	15,119.22	.....
West Virginia.....	233,894.25	23,799.91	3,727.05	109,734.11	33,501.54	.....	1,327.11	.....	29,774.64	.....	.....	8,326.01	.....	5,163.07	2,997.81
Wisconsin.....	284,089.27	15,699.20	4,602.80	128,957.26	32,464.19	.....	7,513.06	.....	17,053.60	.....	.....	6,095.82	4,678.57	11,560.12	.....
Wyoming.....	117,871.20	11,885.62	3,319.71	54,882.76	11,291.70	.....	207.79	.....	23,637.09	.....	419.12	3,974.36	.....	2,525.27	.....
Total, 1919.....	14,661,560.50	930,653.24	263,616.98	7,124,500.90	2,889,210.50	.....	131,782.14	.....	921,621.38	7,979.17	83,326.81	372,189.39	116,115.08	289,756.98	71,678.74
1918.....	11,302,764.75	754,175.86	207,478.99	5,604,962.72	2,226,227.97	.....	153,904.15	.....	669,666.18	9,641.02	9,562.25	299,629.70	60,840.59	332,852.55	31,777.11
1917.....	6,149,619.63	512,891.54	137,647.87	3,058,640.94	741,679.89	.....	175,754.15	.....	319,556.91	6,248.37	9,612.88	155,815.37	49,885.66	208,996.50	44,215.83
1916.....	4,864,180.94	445,243.67	99,779.68	2,411,539.81	519,866.99	.....	198,045.02	.....	231,227.16	25,202.85	12,772.35	106,735.05	34,556.14	172,557.69	21,936.02
1915.....	3,498,815.35	295,308.48	71,597.65	1,902,230.51	319,822.50	.....	198,353.91	.....	162,448.27	10,477.90	10,005.21	31,970.18	9,469.93	106,098.08	4,563.64

Total expenditures of funds from all sources for cooperative agricultural extension work for the year ended June 30, 1919, by projects—Continued.

State.	Agronomy.	Horticulture.	Botany and plant pathology.	Entomology, apiculture, ornithology.	Forestry.	Agricultural engineering.	Farm management.	Rural organization.	Marketing.	Exhibits and fairs.	Farmers' institutes.	Correspondence courses.	Agriculture in schools.	Miscellaneous specialists.	Rodent pests.
Alabama.....	\$5,016.91	\$4,005.38	\$5,142.04	\$3,219.68	.....	\$1,038.25	\$510.80	.....	\$5,875.18	.....	.....	.....	.....	\$1,633.12	\$16,865.78
Arizona.....	.....	.....	3.92	815.04	.....	.....	.....	.....	.....	\$50.10	.....	.....	.....	.....	.....
Arkansas.....	387.90	3,945.25	1,579.24	1,939.69	.....	.....	730.45	.....	9,538.67	.....	.....	.....	.....	.....	.....
California.....	.....	.....	3,926.77	10,156.71	.....	.....	512.47	.....	.....	.....	.....	.....	.....	8,584.18	24,730.00
Colorado.....	3,032.33	.....	7,015.77	1,473.18	.....	.....	2,547.00	.....	8,598.05	.....	.....	.....	.....	.....	10,030.00
Connecticut.....	2,237.61	879.50	1,110.00	3,189.14	.....	.....	3,041.65	\$3,312.22	7,772.30	395.24	.....	.....	.....	6,874.45	.....
Delaware.....	.....	479.52	1,092.57	250.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Florida.....	.....	.....	411.48	313.90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Georgia.....	8,088.96	3,825.92	3,113.81	4,544.62	\$1,894.27	2,863.24	.....	.....	5,390.06	2,687.81	.....	.....	.....	.....	.....
Idaho.....	9,168.93	3,786.82	.....	70.00	.....	.....	75.00	.....	.....	.....	.....	.....	.....	.....	.....
Illinois.....	2,935.39	9,530.44	.....	.....	.....	.....	3,892.74	.....	.....	.....	.....	.....	.....	.....	20,580.01
Indiana.....	5,869.62	8,211.67	15,739.14	3,375.73	.....	2,698.44	8,549.03	.....	2,182.79	.....	\$22,283.02	.....	.....	.....	.....
Iowa.....	11,480.80	9,603.04	18,827.92	3,552.32	.....	5,933.79	8,516.59	.....	5,147.66	.....	.....	.....	.....	.....	.....
Kansas.....	4,753.77	2,398.44	3,457.33	5,074.80	.....	4,986.89	3,068.91	6,912.83	.....	.....	7,474.86	\$13,994.21	.....	.....	.....
Kentucky.....	2,080.65	6,331.18	1,029.62	.....	.....	.....	1,367.00	.....	5,257.95	.....	.....	.....	.....	.....	.....
Louisiana.....	3,221.44	.....	1,052.58	1,190.63	.....	.....	3,082.86	.....	9,903.53	.....	.....	292.86	.....	553.32	.....
Maine.....	.....	.....	4,384.01	770.17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maryland.....	3,049.60	3,628.03	5,905.54	4,961.32	161.52	3,361.91	.....	1,649.43	250.00	.....	.....	.....	.....	.....	.....
Massachusetts.....	1,831.45	4,880.02	3,014.61	1,728.38	.....	.....	4,381.67	3,857.96	5,374.43	745.04	220.82	3,797.86	.....	.....	.....
Michigan.....	6,257.65	6,402.45	22,086.61	4,504.30	1,510.18	2,766.18	6,473.30	.....	8,779.55	.....	.....	.....	.....	.....	.....
Minnesota.....	1,573.92	1,995.26	22,788.28	1,002.37	.....	.....	8,651.99	.....	3,128.70	.....	7,662.86	.....	.....	.....	.....
Mississippi.....	.....	5,168.00	3,294.48	3,347.86	.....	7,476.02	3,684.32	.....	9,383.40	.....	.....	.....	.....	.....	.....
Missouri.....	1,929.75	2,669.54	1,559.62	4,084.47	.....	1,646.61	7,342.77	8.77	.....	.....	.....	.....	.....	.....	.....
Montana.....	1,050.47	.....	4,843.26	713.98	.....	.....	2,352.37	.....	6,598.47	1,429.17	.....	.....	.....	.....	14,263.47
Nebraska.....	8,497.37	8,106.35	15,211.35	2,357.93	.....	8,670.16	10,127.40	.....	5,346.49	.....	.....	.....	.....	.....	7,237.00
Nevada.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Hampshire.....	.....	.....	994.91	.....	.....	.....	1,954.52	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey.....	807.50	4,995.89	3,778.35	320.00	.....	2,107.03	.....	.....	4,795.40	.....	.....	.....	.....	.....	.....
New Mexico.....	825.00	.....	555.10	580.76	.....	.....	.....	.....	3,962.83	.....	.....	.....	.....	.....	24,830.00
New York.....	12,699.70	10,259.91	20,413.60	11,072.07	2,625.70	7,946.43	13,791.41	4,218.11	.....	1,032.53	.....	.....	.....	.....	.....
North Carolina.....	21,233.72	3,998.39	4,209.90	4,172.67	1,885.73	4,518.99	870.90	800.00	23,365.11	3,940.85	.....	.....	.....	.....	7,235.59
North Dakota.....	.....	738.32	10,577.45	243.61	.....	.....	3,733.71	.....	.....	.....	23,319.30	3,390.67	.....	.....	.....
Ohio.....	10,024.27	16,291.03	6,900.20	3,387.28	.....	6,288.34	7,192.13	.....	.....	.....	.....	.....	.....	.....	.....
Oklahoma.....	.....	.....	4,162.61	680.21	.....	4,896.78	877.93	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.....	1,964.69	2,227.53	1,188.84	4,029.87	.....	.....	4,008.01	.....	2,915.64	.....	.....	.....	.....	.....	9,460.00
Pennsylvania.....	7,394.13	4,292.47	9,587.44	316.23	.....	.....	.....	2,754.33	.....	.....	.....	.....	.....	.....	.....
Rhode Island.....	.....	.....	132.00	905.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Carolina.....	6,423.93	6,892.08	3,656.77	5,948.62	.....	.....	.....	998.73	5,168.08	.....	.....	.....	.....	.....	.....
South Dakota.....	515.07	2,960.27	8,922.54	.....	.....	3,459.90	3,755.84	.....	.....	.....	.....	.....	.....	.....	.....
Tennessee.....	3,362.23	.....	1,968.10	200.00	76.92	2,598.40	1,654.61	3,141.85	1,975.00	.....	.....	.....	.....	.....	.....

Texas	26,065.76	9,104.17	20,496.02	19,330.88	7,811.85
Utah	1,655.92	1,699.61	1,209.22	271.05	1,589.05
Vermont	197.76	4,890.90	3,247.26		
Virginia	3,540.41	2,471.62	4,966.98		
Washington	5,443.17	2,737.54	3,232.04	248.67	
West Virginia	2,839.58	5,207.99		3,616.40	9,380.00
Wisconsin	5,746.75	7,938.26	1,178.13		
Wyoming	3,594.12	1,180.66	1,214.67	4,044.60	\$342.96
Total, 1919	170,534.71	286,997.69	125,614.03	163,927.62	653.00
1918	153,211.24	225,604.52	61,591.37	102,302.00	342.96
1917	105,520.87	84,069.57	50,600.78	104,268.47	2,089.37
1916	77,859.05	79,745.13	14,014.12	46,194.46	25,089.63
1915	20,912.81	29,927.89	4,923.17	39,447.36	62,259.08
				20,493.57	50,804.53
				12,482.49	5,279.50
				12,650.06	53,534.22
				14,019.21	16,931.66
				2,298.60	61,596.62
				5,060.34	6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478.14
					27,045.97
					2,588.24
					53,534.22
					16,435.68
					61,596.62
					6,548.89
					119,478

Number of counties with county agents and expenditures for county-agent work for the fiscal year ended June 30, 1919.

State.	Number of agricultural counties.	Number of counties with agent July 1—					Total expenditures.	Salaries.	Travel.	Other expenses.
		1914	1915	1916	1917	1918	1919			
Alabama.....	67	67	67	65	62	66	65	\$148,349.73	\$28,527.62	\$3,752.13
Arizona.....	14	.....	3	6	7	11	11	18,079.78	8,051.81	1,930.11
Arkansas.....	75	45	52	53	61	68	66	180,091.77	27,086.74	318.83
California.....	45	4	11	13	17	33	35	153,156.14	53,156.14	3,406.41
Colorado.....	35	13	13	19	16	29	27	39,431.07	3,814.76	5,015.23
Connecticut.....	8	1	6	7	8	8	8	65,055.61	17,756.27	19,790.15
Delaware.....	3	.....	3	3	2	3	2	8,190.13	2,292.71	889.25
Florida.....	54	25	36	33	37	53	47	107,664.99	9,589.24	690.91
Georgia.....	152	80	81	83	117	120	134	207,261.50	42,338.54	649.15
Idaho.....	30	2	3	7	11	27	32	50,675.42	5,627.19	1,037.83
Illinois.....	102	14	18	20	22	53	63	374,728.13	48,660.57	67,422.76
Indiana.....	92	27	31	32	40	83	76	258,644.80	37,356.77	61,851.65
Iowa.....	99	9	11	16	26	97	99	239,435.11	5,441.21	.....
Kansas.....	105	9	39	56	53	67	53	105,770.66	47,260.62	2,238.02
Kentucky.....	120	28	39	47	45	90	71	181,167.12	16,951.98	804.30
Louisiana.....	64	41	43	43	42	58	55	132,425.05	17,920.02	658.71
Maine.....	16	.....	3	4	9	16	16	39,026.40	12,968.38	1,095.43
Maryland.....	23	8	13	16	23	22	23	83,487.53	17,565.69	51.31
Massachusetts.....	13	1	10	9	11	13	13	49,427.94	13,536.40	24,607.17
Michigan.....	84	11	17	22	30	71	63	181,133.52	27,772.08	3,736.55
Minnesota.....	86	27	23	19	16	85	86	234,327.83	43,670.66	20,195.96
Mississippi.....	81	48	49	44	53	79	75	166,443.41	27,473.61	5,964.80
Missouri.....	114	13	15	14	15	71	52	128,586.33	28,210.45	8,648.54
Montana.....	41	4	8	7	12	23	24	70,708.59	29,734.23	10,007.21
Nebraska.....	93	5	8	9	8	79	54	191,286.15	18,773.95	6,707.01
Nevada.....	15	.....	.....	.....	6	8	4	11,534.16	3,437.22	1,508.16
New Hampshire.....	10	1	5	8	9	10	10	28,001.06	11,635.96	11,502.63
New Jersey.....	19	4	7	11	10	17	18	52,632.60	17,330.92	8,922.80
New Mexico.....	26	.....	8	9	11	25	26	61,005.05	23,130.49	7,039.75
New York.....	57	25	29	36	41	56	55	210,905.30	61,555.11	74,458.34
North Carolina.....	100	51	64	65	69	91	87	181,130.46	33,919.67	2,337.08
North Dakota.....	51	17	15	15	17	38	32	66,660.11	32,245.87	3,394.80
Ohio.....	75	8	10	12	20	63	65	154,470.18	44,316.87	12,686.63
Oklahoma.....	77	40	56	59	62	77	70	177,820.37	35,232.68	135.95
Oregon.....	35	12	14	13	14	24	23	68,124.05	29,771.01	20,364.91
Pennsylvania.....	67	10	14	22	45	53	40	184,152.25	37,455.85	19,193.05
Rhode Island.....	5	.....	.....	4	4	5	4	7,909.63	2,309.57	2,798.72
South Carolina.....	45	43	43	42	40	43	45	90,697.05	16,201.53	24.68
South Dakota.....	66	3	5	11	13	59	36	101,900.53	23,422.39	34,563.95
Tennessee.....	96	36	38	48	57	91	76	138,807.28	21,532.42	468.83

Texas.....	250	98	99	90	92	178	168	403,697.29	349,058.06	54,455.26	183.97
Utah.....	28	8	10	8	15	28	22	71,472.74	50,830.42	18,911.26	1,731.06
Vermont.....	14	7	9	11	11	13	13	56,488.68	27,580.76	12,123.18	16,784.74
Virginia.....	100	53	55	51	53	75	71	163,835.97	136,771.39	26,996.84	67.74
Washington.....	37	7	10	13	22	34	29	128,266.77	76,276.77	29,559.46	22,430.54
West Virginia.....	55	13	27	29	45	48	48	109,734.11	96,419.87	12,513.14	22,801.10
Wisconsin.....	71	9	12	13	22	59	41	128,957.26	99,806.84	23,753.91	5,396.51
Wyoming.....	21	3	6	8	13	15	13	54,882.76	40,177.85	12,840.94	1,863.97
Total, 1916.....	2,936	928	1,136	1,225	1,434	2,435	2,246	7,124,500.90	5,451,182.38	1,176,189.19	497,129.33
1918.....	2,936	.....	.....	.....	.....	2,435	.....	5,604,962.72	4,347,418.06	824,876.72	432,667.94
1917.....	2,920	.....	.....	.....	1,434	.....	.....	3,059,640.94	2,412,168.23	450,736.23	196,736.48
1916.....	2,920	.....	.....	1,225	.....	.....	.....	2,411,539.81	1,908,951.25	338,156.81	164,431.75
1915.....	2,781	.....	1,136	.....	.....	.....	.....	1,900,048.84	1,576,843.40	257,152.46	66,052.98

Number of counties with home-demonstration agents and expenditures for home-demonstration work for the fiscal year ended June 30, 1919.

State.	Number of agri-cultural counties.	Number of counties with agent July 1—						Expenditures for all home-demonstration work.			Other expenses.
		1914	1915	1916	1917	1918	1919	Total ex-penditures.	Salaries.	Travel.	
Alabama.....	67	18	19	27	28	67	54	\$85,162.84	\$69,057.98	\$12,978.56	\$3,126.30
Arizona.....	14	.....	.....	.....	.....	3	6	18,610.40	12,700.51	4,169.09	1,740.80
Arkansas.....	75	15	20	31	47	65	58	124,249.37	102,350.67	21,618.49	1,280.21
California.....	45	.....	.....	.....	.....	24	8	31,012.23	21,506.50	7,642.70	1,863.03
Colorado.....	35	.....	.....	.....	.....	7	3	20,980.65	17,648.82	2,957.47	374.36
Connecticut.....	8	.....	.....	.....	.....	5	6	29,880.90	26,012.21	3,368.18	500.51
Delaware.....	3	.....	.....	.....	.....	1	2	13,197.70	9,328.20	2,709.05	1,160.45
Florida.....	54	24	27	28	35	54	42	83,797.41	70,122.08	11,803.86	1,871.47
Georgia.....	152	29	48	45	57	125	93	160,639.98	125,216.75	31,478.10	3,945.13
Idaho.....	30	.....	.....	.....	.....	24	4	27,303.20	18,120.60	8,124.97	1,057.63
Illinois.....	102	.....	.....	.....	.....	22	17	70,423.92	60,189.84	6,917.68	3,316.40
Indiana.....	92	.....	.....	.....	.....	22	8	64,636.62	58,954.60	5,504.83	177.19
Iowa.....	99	.....	.....	.....	.....	96	23	93,567.06	81,963.69	11,583.55	19.82
Kansas.....	105	.....	.....	.....	.....	14	8	53,684.36	46,627.06	5,883.20	1,174.10
Kentucky.....	120	9	19	24	27	96	74	48,274.51	35,520.64	12,653.59	1,100.28
Louisiana.....	64	13	13	18	20	33	32	71,238.42	55,023.38	15,405.21	809.83
Maine.....	16	.....	.....	.....	.....	14	2	17,302.68	12,139.07	5,049.15	114.46
Maryland.....	23	5	6	10	13	22	23	54,309.73	40,404.14	13,675.27	230.32
Massachusetts.....	13	.....	.....	.....	.....	12	10	104,258.53	76,876.87	13,127.41	14,254.25
Michigan.....	84	.....	.....	.....	.....	24	13	59,323.54	45,868.23	8,367.99	5,087.32
Minnesota.....	86	.....	.....	.....	.....	39	8	39,979.08	33,731.16	5,726.37	5,521.55
Mississippi.....	81	33	33	32	49	71	64	112,926.89	87,570.40	21,073.77	4,282.72
Missouri.....	114	.....	.....	.....	.....	48	20	92,675.59	68,229.21	18,330.13	6,116.25
Montana.....	41	.....	.....	.....	.....	18	11	37,617.22	27,487.77	8,265.21	1,864.24
Nebraska.....	93	.....	.....	.....	.....	30	10	56,449.46	39,520.92	11,253.18	5,675.36
Nevada.....	15	.....	.....	.....	.....	10	5	12,124.72	8,894.27	2,484.58	745.87
New Hampshire.....	10	.....	.....	.....	.....	9	6	27,327.33	20,096.99	6,266.02	964.32
New Jersey.....	19	.....	.....	.....	.....	8	5	29,394.99	19,555.17	7,695.89	2,143.93
New Mexico.....	26	.....	.....	.....	.....	11	5	16,422.94	11,057.25	4,449.63	916.06
New York.....	57	.....	.....	.....	.....	38	24	131,554.01	93,956.83	20,743.09	16,854.09
North Carolina.....	100	27	34	44	48	72	66	138,772.53	126,011.04	9,651.46	3,110.03
North Dakota.....	51	.....	.....	.....	.....	33	5	19,464.77	13,475.27	5,659.87	329.63
Ohio.....	75	.....	.....	.....	.....	50	5	70,523.24	55,937.90	14,323.06	262.28
Oklahoma.....	77	19	24	22	23	50	46	98,207.91	75,051.46	15,859.33	2,297.12
Oregon.....	35	.....	.....	.....	.....	15	5	13,810.46	9,815.51	3,800.26	194.69
Pennsylvania.....	67	.....	.....	.....	.....	48	.....	87,109.05	49,683.24	33,942.04	3,483.77
Rhode Island.....	5	.....	.....	.....	.....	4	4	13,127.28	10,631.76	2,302.21	193.31
South Carolina.....	45	21	24	.....	.....	44	45	121,828.84	96,918.46	24,088.90	821.48
South Dakota.....	66	.....	.....	.....	.....	42	3	13,168.69	10,821.39	2,342.65	4.65
Tennessee.....	96	18	24	31	49	94	77	132,168.00	110,103.20	21,922.93	141.87

	26	27	38	31	67	69			
Texas.....	250						136,670.09	108,880.35	27,407.51
Utah.....	28		2	2	14	4	31,462.55	24,509.21	6,272.23
Vermont.....	14				7	5	16,727.91	13,812.83	2,532.46
Virginia.....	100	17	25	38	52	36	105,959.72	83,317.30	22,569.77
Washington.....	37				22	6	29,625.75	19,927.99	7,971.57
West Virginia.....	55	5	12	12	33	22	33,501.54	23,667.88	8,815.45
Wisconsin.....	71				17	4	32,464.19	30,325.28	1,891.25
Wyoming.....	21				5	7	11,291.70	8,145.49	3,100.40
Total, 1919.....	2,936	279	430	537	1,715	1,053	2,889,210.50	2,266,767.37	525,759.57
1918.....	2,936				1,715		2,226,227.97	1,771,742.77	383,509.92
1917.....	2,920			537			741,679.89	607,465.43	109,495.28
1916.....	2,920		430				519,866.99	420,420.04	79,330.84
1915.....	2,920		350						

Number of persons of the extension staffs classified according to the time devoted to agricultural extension work for the fiscal year ended June 30, 1919.

State.	Extension staff.								Also connected with experiment station.				Also connected with college teaching.			
	Total.		Full time.		More than half time.		Less than half time.		More than half time.		Less than half time.		More than half time.		Less than half time.	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.
Alabama.....	116	49	104	49	12	.....	.....	.....	.....	.....	18	4	.....	.....	18	4
Arkansas.....	131	94	113	90	.....	.....	18	4	.....	.....	18	4	.....	.....	18	4
Arizona.....	23	13	17	5	1	.....	5	8	.....	.....	.....	.....	.....	.....	.....	.....
California.....	114	12	67	12	.....	.....	47	.....	67	12	25	.....	.....	.....	25	.....
Colorado.....	57	15	53	14	.....	.....	4	1	.....	.....	4	1	.....	.....	4	1
Connecticut.....	21	20	16	19	3	1	2	.....	1	.....	.....	.....	2	1	2	.....
Delaware.....	9	4	6	4	1	.....	2	.....	1	.....	2	.....	1	.....	2	.....
Florida.....	65	63	56	56	1	4	8	3	1	4	6	1	.....	1	2	.....
Georgia.....	166	134	158	134	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	8	.....
Idaho.....	55	24	55	24	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	14	1
Illinois.....	102	40	85	36	13	3	4	1	2	.....	2	.....	3	.....	3	1
Indiana.....	263	87	125	45	.....	.....	138	42	.....	.....	.....	.....	.....	.....	.....	.....
Iowa.....	146	52	144	52	1	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....
Kansas.....	102	70	99	69	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kentucky.....	91	39	86	38	.....	.....	5	1	.....	.....	5	1	.....	.....	5	1
Louisiana.....	102	49	100	49	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maine.....	21	10	18	10	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....
Maryland.....	61	34	48	33	1	1	12	.....	1	.....	2	.....	1	.....	10	.....
Massachusetts.....	61	57	52	57	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	9	.....
Michigan.....	94	36	94	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Minnesota.....	102	16	102	16	8	2	17	4	2	.....	.....	.....	2	.....	5	2
Mississippi.....	100	87	100	87	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Missouri.....	69	26	68	26	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....
Montana.....	41	15	40	15	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Nebraska.....	103	26	92	20	2	.....	9	6	1	.....	2	.....	.....	.....	2	1
Nevada.....	11	9	9	8	.....	.....	2	1	.....	.....	.....	.....	.....	.....	2	.....
New Hampshire.....	27	23	26	22	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
New Jersey.....	39	12	32	12	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Mexico.....	55	19	46	16	6	1	3	2	.....	.....	1	.....	.....	.....	1	.....
New York.....	106	42	94	40	8	1	4	1	.....	.....	.....	.....	1	.....	.....	1
North Carolina.....	110	80	110	73	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Dakota.....	69	1	65	.....	3	.....	1	1	3	.....	1	.....	.....	.....	.....	1
Ohio.....	151	49	102	36	1	.....	48	13	.....	.....	2	.....	.....	.....	21	3
Oklahoma.....	117	76	117	76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.....	63	19	47	18	.....	.....	16	1	.....	.....	15	.....	.....	.....	15	.....
Pennsylvania.....	94	23	79	23	.....	.....	15	.....	.....	.....	15	.....	.....	.....	15	.....
Rhode Island.....	18	12	9	10	1	.....	8	2	.....	.....	2	.....	.....	.....	8	2
South Carolina.....	85	73	79	73	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Dakota.....	63	11	59	11	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	2	.....
Tennessee.....	95	106	93	106	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Texas.....	214	144	214	144	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Utah.....	70	39	38	18	25	18	7	3	.....	.....	6	.....	1	.....	6	3
Vermont.....	32	15	23	11	.....	.....	9	4	.....	.....	1	.....	.....	.....	3	.....
Virginia.....	116	59	115	59	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
Washington.....	55	33	53	13	.....	7	2	13	.....	.....	2	1	.....	.....	.....	.....
West Virginia.....	178	31	110	30	61	1	7	.....	.....	.....	6	.....	1	.....	7	.....
Wisconsin.....	97	7	39	4	18	.....	40	3	10	.....	35	2	12	.....	17	1
Wyoming.....	32	9	28	8	.....	.....	4	1	.....	.....	3	.....	.....	.....	2	1
Total, 1919....	4,112	1,964	3,485	1,807	179	46	473	117	90	16	159	10	23	4	214	23
1918....	4,399	2,329	3,548	1,959	184	88	677	289	97	13	200	5	28	4	213	24
1917....	2,983	1,117	2,238	787	209	127	536	203	29	.....	206	2	26	2	249	14
1916....	2,266	754	1,686	515	108	100	472	139	30	.....	199	7	33	19	226	17

Agricultural extension publications for the fiscal year ended June 30, 1919.

State.	Number of publi- cations issued.	Number of pages issued.	Number on mailing list.	Total cost.
Alabama.....	17	118	20,000	\$4,830.35
Arizona.....	3	98	3,000	1,853.68
Arkansas.....	46	246	28,000	6,963.04
California.....	(¹)	(¹)	36,753	.....
Colorado.....	17	243	3,500	4,162.02
Connecticut.....	4	114	7,000	1,415.45
Delaware.....	7	98	2,000	892.79
Florida.....	13	228	17,000	2,779.43
Georgia.....	27	30	35,000	7,282.10
Idaho.....	30	322	20,000	2,184.49
Illinois.....	15	224	33,000	5,465.85
Indiana.....	40	348	438	4,667.46
Iowa.....	27	256	200	6,633.88
Kansas.....	130	800	1,050	1,759.37
Kentucky.....	17	317	1,500	2,530.15
Louisiana.....	3	28	29,733	1,710.71
Maine.....	68	368	7,027	697.10
Maryland.....	7	133	8,000	3,196.86
Massachusetts.....	30	278	536	2,679.11
Michigan.....	24	251	800	2,892.83
Minnesota.....	47	497	53,000	9,442.34
Mississippi.....	14	183	15,000	4,723.30
Missouri.....	41	840	14,269	4,392.58
Montana.....	21	190	.....	3,668.13
Nebraska.....	15	188	(²)	3,150.48
Nevada.....	7	120	8,000	625.74
New Hampshire.....	19	63	20,000	9,781.62
New Jersey.....	10	177	6,000	5,301.01
New Mexico.....	28	392	9,000	2,609.69
New York.....	29	632	85,000	57,735.86
North Carolina.....	24	287	68,000	11,804.70
North Dakota.....	15	123	7,070	2,231.67
Ohio.....	86	918	72,000	10,800.14
Oklahoma.....	33	239	2,025	4,392.78
Oregon.....	26	168	2,500	4,764.26
Pennsylvania.....	12	249	30,000	8,813.51
Rhode Island.....	14	151	3,000	268.83
South Carolina.....	20	360	2,800	5,991.90
South Dakota.....	19	268	3,000	2,149.82
Tennessee.....	7	56	40,000	7,887.11
Texas.....	48	375	9,100	12,484.77
Utah.....	20	192	8,484	1,006.28
Vermont.....	1	8	10,000	207.87
Virginia.....	38	454	7,000	7,227.39
Washington.....	4	40	8,500	5,908.97
West Virginia.....	40	440	3,000	3,727.05
Wisconsin.....	34	266	43,700	4,602.80
Wyoming.....	14	176	13,300	3,319.71
Total, 1919.....	1,212	12,553	798,287	263,616.98
1918.....	1,377	12,625	979,431	190,267.35
1917.....	1,472	13,153	798,689	133,647.87
1916.....	864	9,330	1,023,828	99,779.68
1915.....	819	8,279	967,426	72,090.72

¹ Experiment stations publications used.² No mailing list.

